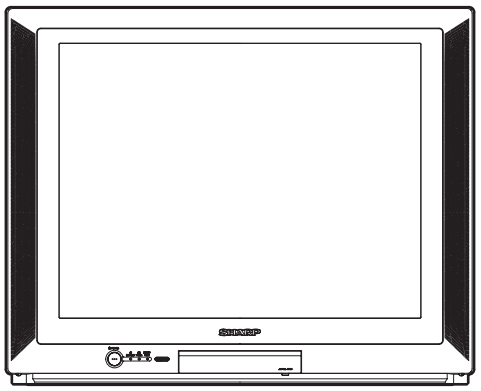
SHARP

SERVICE MANUAL

S15E129H-FG5A



COLOUR TELEVISION

Chassis No.GB-4

MODEL 29H-FG5A

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

FEATURES

- World Multi 28 System
- 100-CH Program Memory
- AV Mode (Standard / Dynamic / Soft / Custom)
- CATV Hyper Band Ready
- 4 Line Disital Comb Filter
- Velocity Modulation
- Blue/Black Stretch Circuit
- Picture Noise Reduction
- White Temp. Select
- Aperture Control
- Gamma Correction
- Multi Language (English / Chinese / French / Malay / Arabic)
- On/Off/Reminder Timer
- Comfy View
- Rear AV-IN 1 & 2, S-Video In, AV Output (Monitor Out), Headphone and Front AV-IN 3
- AFT
- Component Input Terminal
- Multi Language TELE TEXT
- NICAM/A2
- FM Radio
- Child Lock
- Graphic Equalizer
- Clock
- Sound Mode (Music / Movie / News / Custom)
- Hotel Mode
- 16 : 9 Mode

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WARNING

The chassis in this receiver is partially hot. Use an isolation transformer between the line cord plug and power receptacle, when servicing this chassis. To prevent electric shock, do not remove cover. No user – serviceable parts inside. Refer servicing to qualified service personnel.

SHARP CORPORATION

SPECIFICATIONS

Convergence	Self Convergence System
Focus	Bi-Potential, Uni-Potential Electrostatic
Sweep Deflection	Magnetic
Intermediate Frequencies	
Picture IF Carrier	38.9MHz
Sound IF Carrier Frequency	
6.5MHz	32.4MHz
6.0MHz	32.9MHz
5.5MHz	33.4MHz
4.5MHz	34.4MHz
Colour Sub-Carrier Frequency	
PAL	34.47MHz
SECAM	34.494/34.65MHz
NTSC	35.32MHz
Power Input	110 ~ 240V AC 50/60 Hz
Power Consumption	135W
Audio Power Output Rating	10W X 2 (at Max.)
Speaker	
Size	4.3 x 21.8 cm X 2pcs
Aerial Input Impedance	
VHF/UHF	75 ohms Unbalanced
Receiving Channel	
PAL-B/G, SECAM-B/G	
VHF-Channels	E2 thru E12
UHF-Channels	E21thru E69
CATV	X thru Z +2, S1 thru S41
PAL-D/K, SECAM-D/K	
VHF-Channels	R1 thru R12, C1 thru C12
UHF-Channels	21thru 69, C21 thru C57
PAL-I, SECAM-I	
VHF-Channels	(IRELAND) B thru J
UHF-Channels	(U.K. & H.K.) 21thru 69
NTSC-M	
VHF-Channels	2 thru 13 (US)
	1 thru 12 (Japan)
UHF-Channels	14 thru 69 (US)
	13 thru 62 (Japan)
CATV	A-6 thru A-1, A thru W+29 (US)
	C13 thru C63 (Japan)
Receiving Frequency	44.25 MHz thru 863.25 MHz
Dimensions	Width: 722mm
	Height: 582mm
	Depth: 495mm
	Weight(approx): 43.5 kg

Specifications are subject to change without prior notice.

IMPORTANT SERVICE NOTES

Maintenance and repair of this receiver should be done by qualified service personnel only.

SERVICE OF HIGH VOLTAGE SYSTEM AND PICTURE TUBE

When servicing the high voltage system, remove static charge from it by connecting a 10K ohm resistor in series with an insulated wire (such as a test probe) between picture tube dag and 2nd anode lead. (AC line cord should be disconnected from AC outlet.)

1. **Picture tube in this receiver employs integral implosion protection.**
2. **Replace with the same type number of picture tube for continued safety.**
3. **Do not lift picture tube by the neck.**
4. **Handle the picture tube only when wearing shatterproof goggles and after discharging the high voltage completely.**

X-RAY

This receiver is designed so that any X-Ray radiation is kept to an absolute minimum. Since certain malfunctions or servicing may produce potentially hazardous radiation with prolonged exposure at close range, the followin precautions should be observed:

1. **When repairing the circuit, please make sure do not increase the high voltage of the set to more than 34.0kV (at beam 0 μA).**
2. **To keep the set in a normal operation , please make sure it's function at 30.0kV ±1.5kV (at beam 1,700 μA). The set has been factory - adjusted to the above-mentioned high voltage.**

∴ **∴ If there is a possibility that the high voltage fluctuates as a result of the repaires, never forget to check for such high voltage after the work.**

3. **Do not substitute a picture tube with unauthorizerd types and/or brands which may cause excessive X-ray radiation.**

BEFORE RETURNING THE RECEIVER

Before returning the receiver to the user, perform the following safety checks.

1. **Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the receiver.**
2. **Inspect all protective devices such as non-metal control knobs, insulating fishpapers, cabinet backs, adjustment and compartment covers or shields, isolation resistor- capacity networks, mechanical insulators etc.**

ADJUSTMENT PRECAUTIONS

This model's setting are adjusted in two different ways: through the I2C bus control and in the conventional analog manner. The adjustments via the I2C bus control include preset-only items and variable data.

1. Setting the service mode by the microprocessor.

① Press and hold the local key "VOL DOWN" & "CH UP" when power on the main switch,TV will enter into the SERVICE MODE.
② Press the CH DOWN / UP key on the remote controller to get ready to select the mode one by one.
③ Press the CH DOWN / UP key on the remote controller to select the modes reversibly one by one.
④ Using the VOLUME UP/ DOWN key on the remote controller, the data can be modified.
⑤ Use the MENU Key on the remote controller to select the mode as shown in the next page.
⑥ When press the local key "VOL DOWN" & "CH UP" at the same time, it will be released from the service mode.

2. Factory Presetting.

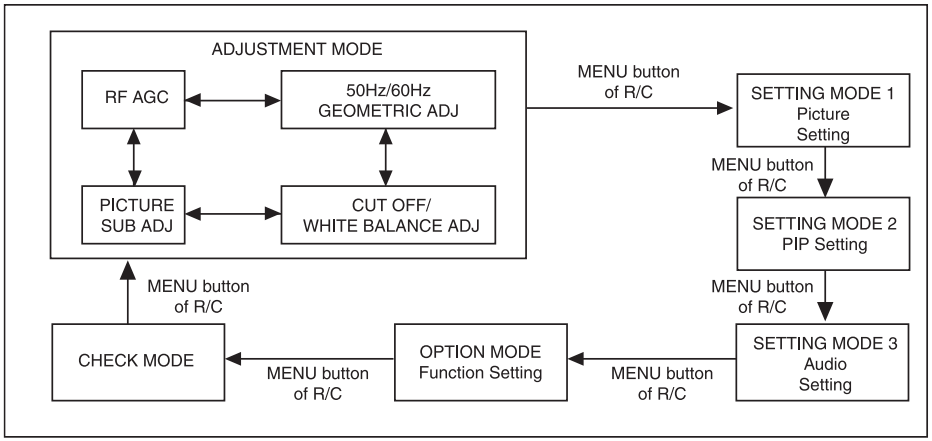
① After enter into the SERVICE MODE, change data "INIT EEPROM" from 0 ---> 1 (which is under "CHECK MODE" section) and then switch off the main power, the initial values are automatically preset (only when a new EEPROM is used).
② The initial data are preset as listed in page 6 to 11.
③ Make sure whether the data need to modify or not (Initial data).

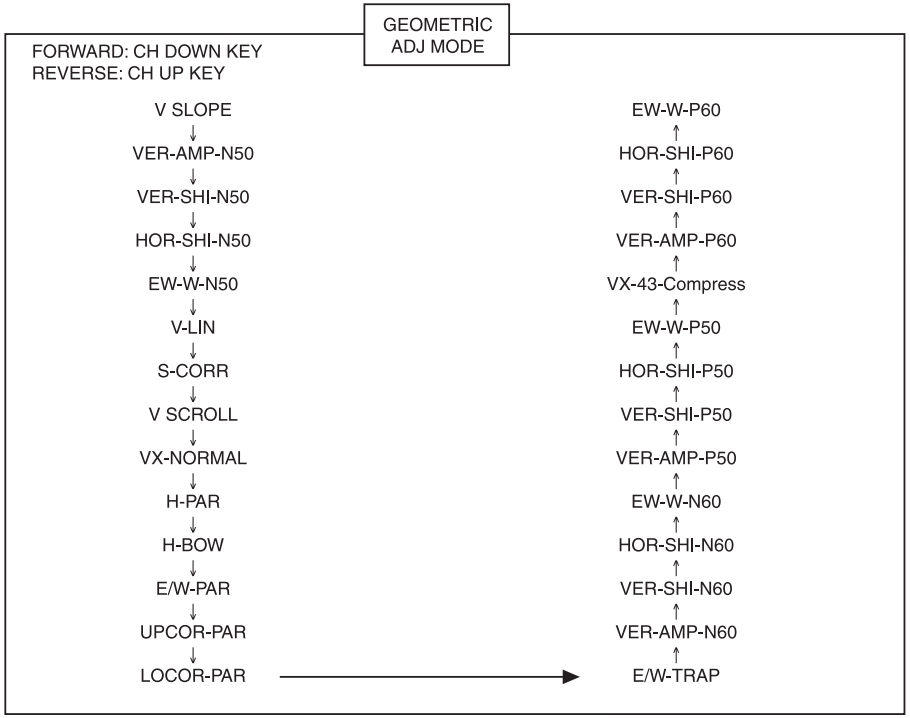
Note: Once the chassis has been assembly together and in ready condition, please make sure it's go through initialize process (see sect 2-(1) above)

Precaution: If haven't done this initialization, malfunction might be happen.

■ SERVICE MODE

(1) In the Service Mode, Key is used to select the mode in the following order.





WHITE POINT ADJ MODE

FORWARD: CH DOWN KEY
REVERSE: CH UP KEY

DRI-RS → DRI-GS → DRI-BS → DUT-RS → CUT-GS → DRI-RC → DRI-GC → DRI-BC → CUT-RC → CUT-GC → DRI-RW → DRI-GW → DRI-BW → CUT-RW → CUT-GW → DRI-RS-DVD → DRI-GS-DVD → DRI-BS-DVD → CUT-RS-DVD → CUT-GS-DVD → DRI-RC-DVD → DRI-GC-DVD → DRI-BC-DVD → CUT-RC-DVD → DRI-RW-DVD → DRI-GW-DVD → DRI-BW-DVD → CUT-RW-DVD → CUT-GW-DVD

PICTURE SUB ADJ MODE

FORWARD: CH DOWN KEY
REVERSE: CH UP KEY

SUB-BR → SUB-BRI-DVD → SUB-COL → SUB-CON → SUB-CON-DVD → SUB-TINT-DVD → SUB-TINT → SUB-SHARP

INITIAL SETTING

(1) Execute MCL 1/2 key to set the following data in EEPROM.

	SREC/SRAC/SYI/STTM					SREC-SCA (SKD)			
R/C CODE	MCL 1 (R/C CODE 117h)					MCL 2 (R/C CODE 169h)			
TV-CH.	CH-No.	Fv (MHz)	S-SYSTEM			CH-No.	Fv (MHz)	S-SYSTEM	
0	SKIP OFF FREE						590.25	5.5	B/G
1	E-2	48.25	5.5	B/G		AU-0	46.25	5.5	B/G
2	E-4/B-3	62.25	5.5	B/G		AU-2	64.25	5.5	B/G
3	OIR-3	77.25	6.5	D/K		AU-3	86.25	5.5	B/G
4	E-5	175.25	5.5	B/G		AU-4	95.25	5.5	B/G
5	E-6/B-5	182.25	5.5	B/G		AU-5A	138.25	5.5	B/G
6	OIR-7	183.25	6.5	D/K		AU-6	175.25	5.5	B/G
7	OIR-8	191.25	6.5	D/K		AU-7	182.25	5.5	B/G
8	E-8/B-7	196.25	5.5	B/G		AU-8	189.25	5.5	B/G
9	J-9	199.25	4.5	M		AU-9	196.25	5.5	B/G
10	E-10/B-9	210.25	5.5	B/G		AU-10	209.25	5.5	B/G
11	E-12/B-11	224.25	5.5	B/G		AU-11	216.25	5.5	B/G
12	E-21	471.25	5.5	B/G		SKIP OFF FREE			
13	I-23	487.25	6.0	I		SKIP OFF FREE			
14	E-25	503.25	5.5	B/G		SKIP OFF FREE			
15	E-34	575.25	5.5	B/G		SKIP OFF FREE			
16	E-35	583.25	5.5	B/G		SKIP OFF FREE			
17	E-37	599.25	5.5	B/G		SKIP OFF FREE			
18	J-38	621.25	4.5	M		SKIP OFF FREE			
19	OIR-42	639.25	6.5	D/K		SKIP OFF FREE			
20	B-50	703.25	5.5	B/G		SKIP OFF FREE			
21	I-54	735.25	6.0	I		SKIP OFF FREE			
22	E-58	767.25	5.5	B/G		SKIP OFF FREE			
23	E-64	815.25	5.5	B/G		SKIP OFF FREE			
24	I-69	855.25	6.0	I		SKIP OFF FREE			
25	E-69	855.25	5.5	B/G		SKIP OFF FREE			
26	US-2	55.25	4.5	M		SKIP OFF FREE			
27	A-6	83.25	4.5	M		SKIP OFF FREE			
28	JA-6	183.25	4.5	M		WE-28	527.25	5.5	B/G
29	JA-8	193.25	4.5	M		SKIP OFF FREE			
30	JA-12	217.25	4.5	M		SKIP OFF FREE			
31	US-14	471.25	4.5	M		SKIP OFF FREE			
32	JA-14	477.25	4.5	M		SKIP OFF FREE			
33	JA-50	693.25	4.5	M		SKIP OFF FREE			
34	US-83	885.25	4.5	M		SKIP OFF FREE			
35	S-2	112.25	5.5	B/G		SKIP OFF FREE			
36	S-10	168.25	5.5	B/G		SKIP OFF FREE			
37	SKIP OFF FREE						590.25	5.5	B/G
38	S-20	294.25	5.5	B/G		SKIP OFF FREE			
39	S-41	463.25	5.5	B/G		SKIP OFF FREE			
40	SKIP OFF FREE					SKIP OFF FREE			
41	B-43	647.25	5.5	B/G		E-2	48.25	5.5	B/G
42	B-45	663.25	5.5	B/G		WE-4	62.25	5.5	B/G
43	B-47	679.25	5.5	B/G		OI-3	77.25	6.5	D/K
44	E-5	174.95	5.5	B/G		E-5	175.25	5.5	B/G
45	E-5	175.55	5.5	B/G		OIR-7	183.25	6.5	D/K
46	SKIP OFF FREE					OIR-8	191.25	6.5	D/K
47	SKIP OFF FREE					E-10	210.25	5.5	B/G
48	SKIP OFF FREE					E-12	224.25	5.5	B/G
49	SKIP OFF FREE					I-23	487.25	6.0	I
50	SKIP OFF FREE					WE-25	503.25	5.5	B/G
51	SKIP OFF FREE					E-34	575.25	5.5	B/G

	SREC/SRAC/SYI/STTM				SREC-SCA (SKD)			
R/C CODE	MCL 1 (R/C CODE 117h)				MCL 2 (R/C CODE 169h)			
TV-CH.	CH-No.	Fv (MHz)	S-SYSTEM		CH-No.	Fv (MHz)	S-SYSTEM	
52	SKIP OFF FREE				E-37	599.25	5.5	B/G
53	SKIP OFF FREE				JPN-38	621.25	4.5	M
54	SKIP OFF FREE				OI-42	639.25	6.5	D/K
55	SKIP OFF FREE				I-54	735.25	6.0	I
56	SKIP OFF FREE				E-58	767.25	5.5	B/G
57	SKIP OFF FREE				WE-64	815.25	5.5	B/G
58	SKIP OFF FREE				I-69	855.25	6.0	I
59	SKIP OFF FREE				JA-1	91.25	4.5	M
60	SKIP OFF FREE				JA-6	183.25	4.5	M
61	SKIP OFF FREE				JA-8	193.25	4.5	M
62	SKIP OFF FREE				JA-12	217.25	4.5	M
63	SKIP OFF FREE				US-14	471.25	4.5	M
64	SKIP OFF FREE				JA-50	693.25	4.5	M
65	SKIP OFF FREE				S-2	112.25	5.5	B/G
66	SKIP OFF FREE				S-10	168.25	5.5	B/G
67	SKIP OFF FREE				S-20	294.25	5.5	B/G
68	SKIP OFF FREE				S-41	463.25	5.5	B/G
69	SKIP OFF FREE				E-5	174.95	5.5	B/G
70	SKIP OFF FREE				E-5	175.55	5.5	B/G
≀	≀				≀			
99	SKIP OFF FREE				SKIP OFF FREE			

SHIPPING SETTING & CHECKING

(1) The following default data has been factory-set for the E2PROM.

Model-Set: The data in table below (1.1), Model set overview is updated to the respective EEPROM location base on RC key input Model Set 1~9.

MODEL-SET KEY	OSD LANGUAGE	SOUND SYSTEM
1	Chinese	(AUTO)
2	Chinese	(AUTO)
3	English	(AUTO)
4	Arabic	(AUTO)
5	Russian	(AUTO)
6	Malay	(AUTO)
7	French	(AUTO)
8	English	*
9	Thai	(AUTO)

For model Set 8 processing only, the respective EEPROM position is updated again with MCL2 data (just like MCL2 key has been pressed)

ITEMS	DEFAULT SETTINGS
GENERAL	
Last power	ON
Last TV/AV mode	Program 1
Last position-TV	Program 1
Flashback Program-TV	Program 1
Flashback Program-RADIO	Program 1
Favorite Program A	Program 10
Favorite Program B	Program 20
Favorite Program C	Program 30
Favorite Program D	Program 40
1 / 2 digit entry	2 digit entry
Volume	0
GAME Volume	0
PIP	OFF
PIP location	Lower-Right
Last position-PIP	Program 1
AFT	All Programs ON
NICAM STEREO mode	All Programs STEREO
NICAM BILINGUAL mode	All Programs M1
NICAM MONO mode	All Programs MONO
A2 STEREO mode	All Programs STEREO
A2 BILINGUAL mode	All Programs MAIN
PICTURE menu	
VIDEO MODE	DYNAMIC
CONTRAST	60
COLOUR	+6
BRIGHNESS	0
TINT	0
SHARPNESS	+6
PICTURE NR	OFF
WHITE TEMP	0 (CENTER)
SOUND menu	
SURROUND	OFF
BBE	ON
BALANCE	0
AVL	ON
SUPER BASS/BASS+	ON

Note : The CHILD LOCK PASSWORD and VIEW TIMER PASSWORD are common use.

ITEMS	DEFAULT SETTINGS
EQUALIZER menu	
MODE	MOVIE
INSET menu (for PIP model)	
BRIGHTNESS	0
TINT	0
FEATURE menu	
BLUE BACK	OFF
AUTO SELECT	ON
POWER SAVE *1	OFF
COMFY VIEW *2	OFF
SAFETY MODE *3	OFF
ROTATION	0
16:9 MODE	OFF
DEMO	OFF
CHILD LOCK menu	
LOCK TV	OFF
LOCK STATUS	OFF
LOCK GAME *4	OFF
PASSWORD	0000
TIMER menu	
CLOCK	_ _:_ _ AM
DAY	SUN
ON TIMER	_ _:_ _ AM
STATUS	ONCE
POSITION	_ _
VOLUME	_ _
OFF TIMER	_ _:_ _ AM
REMINDER	_ _:_ _
BEEP REMINDER	OFF
VIEW TIMER menu	
VIEWING TIME	_ _:_ _
LOCK	OFF
PASSWORD	0000
CH SETTING menu	
POSITION NAME	BLANK (For all position)
COLOUR	All Programs AUTO
SOUND	All Programs AUTO
SKIP	All Programs OFF
FM RADIO menu	
SKIP	All Programs OFF

Refer to next page for *1~*4.

(1) Refer to below table (2-1) for setting of each destination.

MODEL	MAGNETIC FIELD (V.H) nT		BACKGROUND	LANGUAGE	S-SYS	FACTORY SET
HONG KONG	20,000	40,000	17,000K	CHINESE	AUTO	SET 2
SINGAPORE	-10,000	40,000	12,300K	ENGLISH	AUTO	SET 3
MIDDLE EAST	30,000	20,000	18,000K	ARABIC	AUTO	SET 4
AUSTRALIA	-50,000	20,000	12.300K	ENGLISH	AUTO	SET 8
RUSSIA	45,000	20,000	7,500K	RUSSIAN	AUTO	SET 5

Table 2-1

(2) Refer to below table (2-2) for NORMAL setting of each AV mode.

MODE	DYNAMIC	STANDARD	SOFT
CONTRAST	60	60	50
COLOR	+6	+1	-5
BRIGHT	0	0	0
TINT	0	0	0
SHARPNESS	+6	1	-4
PEICTURE NR	OFF	OFF	OFF
WHITE TEMP	0 (center)	0 (center)	0 (center)

Table 2-2

(3) Refer to below note for *1 ~ *4.

(*1) : Only available for model with POWER SAVE function.
(*2) : Only available for model with COMFY VIEW function.
(*3) : Only available for model with SAFETY MODE function.
(*4) : Only available for model with GAME function.

OPTION MODE MENU

ITEM	SERVICE MODE	EEPROM ITEM	OSD	DATA	INITIAL DATA	SETTING DATA
1	Option Mode	Picture Tube Used Type	TUBE-TYPE	0/1	1	1
2		PIF Frequency Setting	PIF	0..7	2	2
3		Sound M	SND-M	0/1	0	1
4		Sound DK	SND-DK	0/1	1	1
5		Sound I	SND-I	0/1	1	1
6		Sound BG	SND-BG	0/1	1	1
7		Colour System SECAM	SECAM	0/1	1	1
8		Colour System NTSC358	NTSC358	0/1	0	1
9		Colour System NTSC443	NTSC443	0/1	1	1
10		Game IC	GAME-IC	0/1	0	0
11		Picture In Picture	PIP	0/1	0	0
12		Headphone	HEADPHONE	0/1	1	1
13		Equalizer	EQUALIZER	0/1	1	1
14		Sub Woofer	WOOFER	0/1	1	0
15		BBE	BBE	0/1	1	0
16		SRS	SRS	0/1	1	0
17		DOLBY	DOLBY	0/1	0	0
18		Audio Configuration	AUDIO-CFG	0..4	2	2
19		Mono Bilingual	BILINGUAL	0/1	0	0
20		Hotel Mode	HOTEL	0/1	0	0
21		Hotel Volume	HTL-VOL	0..60	30	30
22		Hotel Program Number	HTL-PRG	0..99	1	1
23		HTL-USE-LAST	HTL-USE-LAST	0/1	1	1
24		OPC	OPC	0/1	0	1
25		Rotation Functionality	ROTATION	0/1	0	0
26		Childlock	CHILD	0/1	0	1
27		Wide Screen Signalling	WSS	0/1	0	0
28		Golden SCART	GLD-SCART	0/1	0	0
29		Thailand OSD Language	THAI	0/1	0	0
30		Arabic OSD Language	ARABIC	0/1	1	1
31		Iranian OSD Language	IRANIAN	0/1	0	0
32		Malay OSD Language	MALAY	0/1	1	1
33		Chinese OSD Language	CHINESE	0/1	1	1
34		French OSD Language	FRENCH	0/1	1	1
35		Russian OSD Language	RUSSIAN	0..2	1	0
36		Power On Last Status	PW-LAST	0..2	1	1
37		Background	BACK-GND	0/1	0	0
38		Tuner 2	TUNER2	0/1	1	0
39		FM Radio	FM-RADIO	0/1	1	1
40		Curtain Effect	CURTAIN	0/1	1	1
41		Curtain Colour	CURT-COLOUR	0..7	7	7
42		AV1-IN	AV1-IN	0/1	1	1
43		AV1S-IN	AV1S-IN	0/1	1	1
44		AV2-IN	AV2-IN	0/1	1	1
45		Component Input	DVD1-IN	0/1	1	1
46		AV3-IN	AV3-IN	0/1	1	1
47		AV3S-IN	AV3S-IN	0/1	1	1
48		INCL-AV	INCL-AV	0/1	1	1
49		Reminder Timer	TIM-REMINDER	0/1	1	1
50		View Timer	TIM-VIEW	0/1	1	1
51		Switch Timer	TIM-SWITCH	0/1	1	1
52		Time Format	TIME-FORMAT	0/1	1	0
53		Off Timer	TIM-OFF	0/1	1	1
54		Commercial Skip Timer	TIM-SKIP	0/1	1	0
55		Teletext Pan-european	TXT-EURO	0/1	1	1
56		Teletext Western	TXT-WEST	0/1	1	1
57		Teletext On	TXT-ON	0/1	1	1
58		Teletext Split	TXT-SPLIT	0/1	1	1
59		Virgin Mode	VIRGIN MODE	0/1	0	0
60		ERR-1-8-SUP	ERR-1-8-SUP	0/1	1	1
61		ERR-XRAY	ERR-XRAY	0/1	1	1
62		ERR-SUPVOL	ERR-SUPVOL	0/1	1	1
63		ERR-VERTG	ERR-VERTG	0/1	1	1
64		LOGO	LOGO	0/1	0	0

ITEM	EEPROM SETTING	DATA RANGE	IC	OSD	INITIAL DATA	SETTING DATA
A001	RF-AGC	0···63	UOC-TV	RF-AGC	32	19
A002	RF AGC PIP	0···63	PIP-IF	RF AGC PIP	0	0
A003	V SLOPE	0···63	UOC-TV	V SLOPE	40	35
A004	VER-AMP-N50	0···63	UOC-TV	VER-AMP-N50	32	17
A005	VER-SHI-N50	0···63	UOC-TV	VER-SHI-N50	25	32
A006	HOR-SHI-N50	0···63	UOC-TV	HOR-SHI-N50	45	47
A007	EW-W-N50	0···63	UOC-TV	EW-W-N50	40	26
A008	V-LIN	0···63	UOC-TV	V-LIN	32	34
A009	S-COR	0···63	UOC-TV	S-COR	30	32
A010	V SCROLL	0···63	UOC-TV	V SCROLL	32	32
A011	VX-NORMAL	0···63	UOC-TV	VX-NORMAL	32	32
A012	H-PAR	0···63	UOC-TV	H-PAR	35	35
A013	H-BOW	0···63	UOC-TV	H-BOW	25	30
A014	E/W-PAR	0···63	UOC-TV	E/W-PAR	35	40
A015	UPCOR-PAR	0···63	UOC-TV	UPCOR-PAR	45	45
A016	LOCOR-PAR	0···63	UOC-TV	LOCOR-PAR	42	45
A017	E/W-TRAP	0···63	UOC-TV	E/W-TRAP	32	32
A018	VER-AMP-N60	0···63	UOC-TV	VER-AMP-N60	32	19
A019	VER-SHI-N60	0···63	UOC-TV	VER-SHI-N60	25	30
A020	HOR-SHI-N60	0···63	UOC-TV	HOR-SHI-N60	45	50
A021	EW-W-N60	0···63	UOC-TV	EW-W-N60	40	26
A022	VER-AMP-P50	0···63	UOC-TV	VER-AMP-P50	32	17
A023	VER-SHI-P50	0···63	UOC-TV	VER-SHI-P50	32	32
A024	HOR-SHI-P50	0···63	UOC-TV	HOR-SHI-P50	32	47
A025	EW-W-P50	0···63	UOC-TV	EW-W-P50	32	26
A026	VX-43-COMPRESS	0···63	UOC-TV	VX-43-COMPRESS	32	5
A027	VER-AMP-F50	0···63	UOC-TV	VER-AMP-F50	32	32
A028	VER-SHI-F50	0···63	UOC-TV	VER-SHI-F50	32	32
A029	HOR-SHI-F50	0···63	UOC-TV	HOR-SHI-F50	32	32
A030	EW-W-F50	0···63	UOC-TV	EW-W-F50	32	32
A031	VER-AMP-S50	0···63	UOC-TV	VER-AMP-S50	32	32
A032	VER-SHI-S50	0···63	UOC-TV	VER-SHI-S50	32	32
A033	HOR-SHI-S50	0···63	UOC-TV	HOR-SHI-S50	32	32
A034	EW-W-S50	0···63	UOC-TV	EW-W-S50	32	32
A035	SUB-SLOPE-S	0···63	UOC-TV	SUB-SLOPE-S	32	32
A036	SUB-VX-S	0···63	UOC-TV	SUB-VX-S	32	32
A037	VER-AMP-C50	0···63	UOC-TV	VER-AMP-C50	32	32
A038	VER-SHI-C50	0···63	UOC-TV	VER-SHI-C50	32	32
A039	HOR-SHI-C50	0···63	UOC-TV	HOR-SHI-C50	34	34
A040	EW-W-C50	0···63	UOC-TV	EW-W-C50	32	32
A041	SUB-SLOPE-C	0···63	UOC-TV	SUB-SLOPE-C	32	32
A042	SUB-VX-C	0···63	UOC-TV	SUB-VX-C	32	32
A043	VER-AMP-P60	0···63	UOC-TV	VER-AMP-P60	32	19
A044	VER-SHI-P60	0···63	UOC-TV	VER-SHI-P60	32	30
A045	HOR-SHI-P60	0···63	UOC-TV	HOR-SHI-P60	32	50
A046	EW-W-P60	0···63	UOC-TV	EW-W-P60	32	26
A047	VER-AMP-F60	0···63	UOC-TV	VER-AMP-F60	32	32
A048	VER-SHI-F60	0···63	UOC-TV	VER-SHI-F60	32	32
A049	HOR-SHI-F60	0···63	UOC-TV	HOR-SHI-F60	32	32
A050	EW-W-F60	0···63	UOC-TV	EW-W-F60	32	32
A051	VER-AMP-S60	0···63	UOC-TV	VER-AMP-S60	32	32
A052	VER-SHI-S60	0···63	UOC-TV	VER-SHI-S60	32	32
A053	HOR-SHI-S60	0···63	UOC-TV	HOR-SHI-S60	32	32
A054	EW-W-S60	0···63	UOC-TV	EW-W-S60	32	32
A055	VER-AMP-C60	0···63	UOC-TV	VER-AMP-C60	32	32
A056	VER-SHI-C60	0···63	UOC-TV	VER-SHI-C60	32	32
A057	HOR-SHI-C60	0···63	UOC-TV	HOR-SHI-C60	32	32
A058	EW-W-C60	0···63	UOC-TV	EW-W-C60	32	32
A059	OF-ROTATE	0···127	UOC-TV	OF-ROTATE	63	0

ITEM	EEPROM SETTING	DATA RANGE	IC	OSD	INITIAL DATA	SETTING DATA
A060	DRI-RS	0···63	UOC-TV	DRI-RS	32	32
A061	DRI-GS	0···63	UOC-TV	DRI-GS	32	32
A062	DRI-BS	0···63	UOC-TV	DRI-BS	32	32
A063	CUT-RS	0···63	UOC-TV	CUT-RS	32	32
A064	CUT-GS	0···63	UOC-TV	CUT-GS	32	32
A065	DRI-RC	0···63	UOC-TV	DRI-RC	32	32
A066	DRI-GC	0···63	UOC-TV	DRI-GC	32	32
A067	DRI-BC	0···63	UOC-TV	DRI-BC	32	32
A068	CUT-RC	0···63	UOC-TV	CUT-RC	32	32
A069	CUT-GC	0···63	UOC-TV	CUT-GC	32	32
A070	DRI-RW	0···63	UOC-TV	DRI-RW	32	32
A071	DRI-GW	0···63	UOC-TV	DRI-GW	32	32
A072	DRI-BW	0···63	UOC-TV	DRI-BW	32	32
A073	CUT-RW	0···63	UOC-TV	CUT-RW	32	32
A074	CUT-GW	0···63	UOC-TV	CUT-GW	32	32
A075	DRI-RS-DVD	0···63	UOC-TV	DRI-RS-DVD	32	32
A076	DRI-GS-DVD	0···63	UOC-TV	DRI-GS-DVD	32	32
A077	DRI-BS-DVD	0···63	UOC-TV	DRI-BS-DVD	32	32
A078	CUT-RS-DVD	0···63	UOC-TV	CUT-RS-DVD	32	32
A079	CUT-GS-DVD	0···63	UOC-TV	CUT-GS-DVD	32	32
A080	DRI-RC-DVD	0···63	UOC-TV	DRI-RC-DVD	32	32
A081	DRI-GC-DVD	0···63	UOC-TV	DRI-GC-DVD	32	32
A082	DRI-BC-DVD	0···63	UOC-TV	DRI-BC-DVD	32	32
A083	CUT-RC-DVD	0···63	UOC-TV	CUT-RC-DVD	32	32
A084	CUT-GC-DVD	0···63	UOC-TV	CUT-GC-DVD	32	32
A085	DRI-RW-DVD	0···63	UOC-TV	DRI-RW-DVD	32	32
A086	DRI-GW-DVD	0···63	UOC-TV	DRI-GW-DVD	32	32
A087	DRI-BW-DVD	0···63	UOC-TV	DRI-BW-DVD	32	32
A088	CUT-RW-DVD	0···63	UOC-TV	CUT-RW-DVD	32	32
A089	CUT-GW-DVD	0···63	UOC-TV	CUT-GW-DVD	32	32
A090	SUB-BRI	0···63	UOC-TV	SUB-BRI	32	39
A091	SUB-BRI-DVD	0···63	UOC-TV	SUB-BRI-DVD	32	38
A092	SUB-COL	0···63	UOC-TV	SUB-COL	32	34
A093	SUB-CON	0···63	UOC-TV	SUB-CON	32	48
A094	SUB-CON-DVD	0···63	UOC-TV	SUB-CON-DVD	32	49
A095	SUB-TINT-DVD	0···63	UOC-TV	SUB-TINT-DVD	32	34
A096	SUB-TINT	0···63	UOC-TV	SUB-TINT	32	34
A097	SUB-SHARP	0···63	UOC-TV	SUB-SHARP	32	12
A098	P-POSOFH-50	0···31	PIP	P-POSOFH-50	0	16
A099	P-POSOFV-50	0···7	PIP	P-POSOFV-50	0	3
A100	P-POSOFH-60	0···31	PIP	P-POSOFH-60	0	16
A101	P-POSOFV-60	0···7	PIP	P-POSOFV-60	0	3
A102	P-SUB-TINT	0···63	PIP	P-SUB-TINT	0	32
A103	P-CON-CTM	0···15	PIP	P-CON-CTM	0	4
A104	P-CON-DYN	0···15	PIP	P-CON-DYN	0	4
A105	P-CON-STD	0···15	PIP	P-CON-STD	0	4
A106	P-CON-SOFT	0···15	PIP	P-CON-SOFT	0	4
A107	P-SUB-BRI	0···15	PIP	P-SUB-BRI	0	4
A108	P-BKGD-R	0···15	PIP	P-BKGD-R	0	4
A109	P-BKGD-G	0···15	PIP	P-BKGD-G	0	4
A110	P-BKGD-B	0···15	PIP	P-BKGD-B	0	4
A111	P-SUB-COL	0···15	PIP	P-SUB-COL	0	7
A112	P-SUB-SHP	0···7	PIP	P-SUB-SHP	0	3
A113	VSD	0/1	UOC-TV	VSD	0	0
A114	CUT OFF	0···63	UOC-TV	CUT OFF	6	6
A115	VG2	0/1	UOC-TV	VG2	0	1
A116	DCXO	0···127	UOC-TV	DCXO	79	69
A117	DCXO-AUTO	0/1	UOC-TV	DCXO-AUTO	0	0

Setting Mode 1-1

ITEM	EEPROM SETTING	DATA RANGE	IC	OSD	INITIAL DATA	SETTING DATA
S001	V-LINCTRL	0···2	UOC-TV	V-LINCTRL	0	0
S002	IFPLL	0···63	UOC-TV	IFPLL	32	32
S003	SOC1-0	0···3	UOC-TV	SOC1-0	0	1
S004	WHITE LMT	0···15	UOC-TV	WHITE LMT	0	12
S005	GD	0/1	UOC-TV	GD	1	1
S006	AGC0-1	0···3	UOC-TV	AGC0-1	1	1
S007	FFI	0/1	UOC-TV	FFI	0	0
S008	CFA0	0/1	UOC-TV	CFA0	0	0
S009	YD PAL	0···15	UOC-TV	YD PAL	7	11
S010	YD SECAM	0···15	UOC-TV	YD SECAM	7	11
S011	YD N358	0···15	UOC-TV	YD N358	7	9
S012	YD N443	0···15	UOC-TV	YD N443	7	7
S013	YD AV-PAL	0···15	UOC-TV	YD AV-PAL	7	7
S014	YD AV-SECAM	0···15	UOC-TV	YD AV-SECAM	7	7
S015	YD AV-N358	0···15	UOC-TV	YD AV-N358	7	7
S016	YD AV-N443	0···15	UOC-TV	YD AV-N443	7	7
S017	YD SAV-PAL	0···15	UOC-TV	YD SAV-PAL	7	7
S018	YD SAV-SECAM	0···15	UOC-TV	YD SAV-SECAM	7	7
S019	YD SAV-N358	0···15	UOC-TV	YD SAV-N358	7	7
S020	YD SAV-N443	0···15	UOC-TV	YD SAV-N443	7	7
S021	YD COMP-PAL	0···15	UOC-TV	YD COMP-PAL	7	7
S022	YD COMP-SECAM	0···15	UOC-TV	YD COMP-SECAM	7	7
S023	YD COMP-N358	0···15	UOC-TV	YD COMP-N358	7	7
S024	YD COMP-N443	0···15	UOC-TV	YD COMP-N443	7	7
S025	SBO1-0	0···3	UOC-TV	SBO1-0	1	1
S026	CHSE1-0	0···3	UOC-TV	CHSE1-0	2	1
S027	FCO	0/1	UOC-TV	FCO	0	0
S028	OSO	0/1	UOC-TV	OSO	1	1
S029	DFL	0/1	UOC-TV	DFL	1	1
S030	EVG	0/1	UOC-TV	EVG	1	1
S031	HCO	0/1	UOC-TV	HCO	1	1
S032	SVMA	0/1	UOC-TV	SVMA	1	1
S033	FBC	0/1	UOC-TV	FBC	0	0
S034	SLG1-0	0···3	UOC-TV	SLG1-0	1	1
S035	CL3-0	0···15	UOC-TV	CL3-0	7	7
S036	GAM	0/1	UOC-TV	GAM	1	1
S037	TFR	0/1	UOC-TV	TFR	0	1
S038	CLD	0/1	UOC-TV	CLD	0	0
S039	BKS	0/1	UOC-TV	BKS	1	1
S040	BSD	0/1	UOC-TV	BSD	0	1
S041	AAS	0···3	UOC-TV	AAS	1	1
S042	DSK-EXT	0/1	UOC-TV	DSK-EXT	1	1
S043	BLS	0/1	UOC-TV	BLS	0	1
S044	LLB	0/1	UOC-TV	LLB	0	0
S045	DSA	0/1	UOC-TV	DSA	0	1
S046	RPA1-0	0···2	UOC-TV	RPA1-0	0	2
S047	RPO1-0	0···3	UOC-TV	RPO1-0	3	3
S048	COR1-0	0···3	UOC-TV	COR1-0	2	1
S049	CRA0	0/1	UOC-TV	CRA0	0	0
S050	SPR2-0	0···6	UOC-TV	SPR2-0	0	5
S051	SVM2-0	0···7	UOC-TV	SVM2-0	5	3
S052	SMD1-0	0···3	UOC-TV	SMD1-0	3	3
S053	PEAKFREQPAL443	0···3	UOC-TV	PEAKFREQPAL443	0	1
S054	PEAKFREQPALM	0···3	UOC-TV	PEAKFREQPALM	0	0
S055	PEAKFREQPALN	0···3	UOC-TV	PEAKFREQPALN	0	0
S056	PEAKFREQNTSC443	0···3	UOC-TV	PEAKFREQNTSC443	0	1
S057	PEAKFREQNTSCM	0···3	UOC-TV	PEAKFREQNTSCM	0	0
S058	PEAKFREQSECAM	0···3	UOC-TV	PEAKFREQSECAM	0	0
S059	PEAKFREQAV	0···3	UOC-TV	PEAKFREQAV	0	3

Setting Mode 1-2

ITEM	EEPROM SETTING	DATA RANGE	IC	OSD	INITIAL DATA	SETTING DATA
S060	OF-COL-TV	0···31···62	UOC-TV	OF-COL-TV	31	45
S061	OF-COL-AV	0···31···62	UOC-TV	OF-COL-AV	31	46
S062	OF-COL-DVD	0···31···62	UOC-TV	OF-COL-DVD	31	45
S063	OF-COL-P	0···31···62	UOC-TV	OF-COL-P	31	40
S064	OF-COL-S	0···31···62	UOC-TV	OF-COL-S	31	31
S065	OF-COL-N4	0···31···62	UOC-TV	OF-COL-N4	31	31
S066	OF-COL-N3	0···31···62	UOC-TV	OF-COL-N3	31	46
S067	OF-SHP-TV	0···31···62	UOC-TV	OF-SHP-TV	36	23
S068	OF-SHP-AV	0···31···62	UOC-TV	OF-SHP-AV	36	49
S069	OF-SHP-DVD	0···31···62	UOC-TV	OF-SHP-DVD	31	35
S070	OF-SHP-P		UOC-TV	OF-SHP-P	31	35
S071	OF-SHP-S	0···31···62	UOC-TV	OF-SHP-S	31	31
S072	OF-SHP-N4	0···31···62	UOC-TV	OF-SHP-N4	31	31
S073	OF-SHP-N3	0···31···62	UOC-TV	OF-SHP-N3	31	40
S074	OF-TINT-TV	0···31···62	UOC-TV	OF-TINT-TV	31	31
S075	OF-TINT-AV	0···31···62	UOC-TV	OF-TINT-AV	31	34
S076	OF-TINT-DVD	0···31···62	UOC-TV	OF-TINT-DVD	31	32
S077	OF-TINT-ADJ	0···31···62	UOC-TV	OF-TINT-ADJ	31	31
S078	BB-TINT	0···63	UOC-TV	BB-TINT	32	32
S079	VMA-SOFT	0···3	UOC-TV	VMA-SOFT	0	0
S080	WS-SOFT	0···3	UOC-TV	WS-SOFT	0	1
S081	VMA-STD	0···3	UOC-TV	VMA-STD	1	1
S082	WS-STD	0···3	UOC-TV	WS-STD	1	1
S083	VMA-DYN	0···3	UOC-TV	VMA-DYN	3	2
S084	WS-DYN	0···3	UOC-TV	WS-DYN	3	1
S085	VMA-CTM	0···3	UOC-TV	VMA-CTM	2	2
S086	WS-CTM	0···3	UOC-TV	WS-CTM	2	1
S087	U-COL-SOFT	0···31···62	UOC-TV	U-COL-SOFT	26	25
S088	U-COL-STD	0···31···62	UOC-TV	U-COL-STD	31	31
S089	U-COL-DYN	0···31···62	UOC-TV	U-COL-DYN	36	36
S090	U-CON-SOFT	0···63	UOC-TV	U-CON-SOFT	50	50
S091	U-CON-STD	0···63	UOC-TV	U-CON-STD	60	60
S092	U-CON-DYN	0···63	UOC-TV	U-CON-DYN	60	60
S093	U-SHP-SOFT	0···31···62	UOC-TV	U-SHP-SOFT	26	26
S094	U-SHP-STD	0···31···62	UOC-TV	U-SHP-STD	31	31
S095	U-SHP-DYN	0···31···62	UOC-TV	U-SHP-DYN	36	36
S096	VOL5-0	0···63	UOC-TV	VOL5-0	32	35
S097	HOP1-0	0···3	UOC-TV	HOP1-0	2	0
S098	TAS5-0-NORM	0···63	UOC-TV	TAS5-0-NORM	10	10
S099	TAS5-0-A	0···63	UOC-TV	TAS5-0-A	23	23
S100	BRI3-0	0···31	UOC-TV	BRI3-0	16	25
S101	HSD6-0	0···127	UOC-TV	HSD6-0	63	3
S102	VSD6-0	0···127	UOC-TV	VSD6-0	63	63
S103	HOPB1-0	0···3	UOC-TV	HOPB1-0	1	1
S104	TASB5-0	0···63	UOC-TV	TASB5-0	2	2
S105	PGB5-0	0···127	UOC-TV	PGB5-0	73	73
S106	VOLB5-0	0···63	UOC-TV	VOLB5-0	32	32
S107	SMTHB	0/1	UOC-TV	SMTHB	0	0
S108	SMTH	0/1	UOC-TV	SMTH	0	0
S109	RANGE1-0	0···3	UOC-TV	RANGE1-0	1	0
S110	RANGEB1-0	0···3	UOC-TV	RANGEB1-0	1	1
S111	PWR-SAVING	0/1	UOC-TV	PWR-SAVING	1	1
S112	PWR-TIME	0···3	UOC-TV	PWR-TIME	0	3
S113	I-TIME	0···3	UOC-TV	I-TIME	0	0
S114	GAME-HON	0···255	GAME IC	GAME-HON	6	10
S115	GAME-VERT-1	0···255	GAME IC	GAME-VERT-1	23	27
S116	GAME-VERT-2	0···255	GAME IC	GAME-VERT-2	0	0
S117	GAME-ORIV	0···255	GAME IC	GAME-ORIV	192	192
S118	GAME-MODE	0···255	GAME IC	GAME-MODE	1	1

Setting Mode 1-3

ITEM	EEPROM SETTING	DATA RANGE	IC	OSD	INITIAL DATA	SETTING DATA
S119	PHI FORCE	0/1	UOC-TV	PHI FORCE	1	1
S120	PHI	0···3	UOC-TV	PHI	3	3
S121	BPD	0/1	UOC-TV	BPD	0	0
S122	E2D	0/1	UOC-TV	E2D	0	0
S123	ACL	0/1	UOC-TV	ACL	1	1
S124	MUS	0/1	UOC-TV	MUS	0	1
S125	CB	0/1	UOC-TV	CB	1	0
S126	SVM-OSD-PW	0···3	UOC-TV	SVM-OSD-PW	3	3
S127	SMD-OSD-TM	0···7	UOC-TV	SMD-OSD-TM	2	2
S128	XDT	0/1	UOC-TV	XDT	0	1
S129	HBL	0/1	UOC-TV	HBL	1	1
S130	WBF	0···15	UOC-TV	WBF	10	6
S131	WBR	0···15	UOC-TV	WBR	8	13
S132	FSL	0/1	UOC-TV	FSL	0	0
S133	HP2	0/1	UOC-TV	HP2	0	0
S134	CUR_VPOS	0···63	UOC-TV	CUR_VPOS	20	20
S135	OSVE	0/1	UOC-TV	OSVE	0	1
S136	GAIN-RED	0···127	UOC-TV	GAIN-RED	20	20
S137	GAIN GREEN	0···127	UOC-TV	GAIN GREEN	20	20
S138	GAIN BLUE	0···127	UOC-TV	GAIN BLUE	20	20

Setting Mode 2-1

ITEM	EEPROM SETTING	DATA RANGE	IC	OSD	INITIAL DATA	SETTING DATA
S201	P-POSHOR	0···255	PIP	P-POSHOR	44	44
S202	P-POSVER-50	0···255	PIP	P-POSVER-50	30	30
S203	P-POSVER-60	0···255	PIP	P-POSVER-60	26	26
S204	P-HFP	0···15	PIP	P-HFP	0	0
S205	P-VFP	0···15	PIP	P-VFP	0	0
S206	P-VSPDEL-50	0···31	PIP	P-VSPDEL-50	13	13
S207	P-VSPDEL-60	0···31	PIP	P-VSPDEL-60	13	13
S208	P-VERBLK	0/1	PIP	P-VERBLK	0	0
S209	P-SELDEL	0···15	PIP	P-SELDEL	8	8
S210	P-CLPDEL	0···31	PIP	P-CLPDEL	6	6
S211	P-AGCMD	0···3	PIP	P-AGCMD	3	3
S212	P-AGCVAL	0···15	PIP	P-AGCVAL	8	8
S213	P-CLMPID	0···3	PIP	P-CLMPID	3	3
S214	P-BLKVCHYS	0/1	PIP	P-BLKVCHYS	0	0
S215	P-BLKCVAL	0/1	PIP	P-BLKCVAL	0	0
S216	P-LMOFST	0···3	PIP	P-LMOFST	0	0
S217	P-PLLITC-TV	0···3	PIP	P-PLLITC-TV	2	2
S218	P-PLLITC-AV	0···3	PIP	P-PLLITC-AV	1	1
S219	P-BLKVCFIL	0/1	PIP	P-BLKVCFIL	0	0
S220	P-YCD-TV-P	0···15	PIP	P-YCD-TV-P	8	8
S221	P-YCD-TV-N3	0···15	PIP	P-YCD-TV-N3	8	8
S222	P-YCD-TV-N4	0···15	PIP	P-YCD-TV-N4	8	8
S223	P-YCD-TV-S	0···15	PIP	P-YCD-TV-S	8	8
S224	P-YCD-AV-P	0···15	PIP	P-YCD-AV-P	8	8
S225	P-YCD-AV-N3	0···15	PIP	P-YCD-AV-N3	8	8
S226	P-YCD-AV-N4	0···15	PIP	P-YCD-AV-N4	8	8
S227	P-YCD-AV-S	0···15	PIP	P-YCD-AV-S	8	8
S228	P-LOCKSP	0/1	PIP	P-LOCKSP	0	0
S229	P-CKILL	0···3	PIP	P-CKILL	0	0
S230	P-BGPOS	0/1	PIP	P-BGPOS	1	1
S231	P-DEEMP	0···3	PIP	P-DEEMP	0	0
S232	P-COLON	0/1	PIP	P-COLON	0	0
S233	P-CHRBW	0···3	PIP	P-CHRBW	0	0
S234	P-IFCOMP	0···3	PIP	P-IFCOMP	2	2
S235	P-SATNR	0/1	PIP	P-SATNR	1	1
S236	P-SCADJ-P	0···31	PIP	P-SCADJ-P	7	7
S237	P-SCADJ-N3	0···31	PIP	P-SCADJ-N3	7	7
S238	P-SCADJ-N4	0···31	PIP	P-SCADJ-N4	7	7
S239	P-SCADJ-S	0···31	PIP	P-SCADJ-S	7	7
S240	P-PKLR	0···255	PIP	P-PKLR	80	80
S241	P-PKLG	0···255	PIP	P-PKLG	80	80
S242	P-PKLB	0···255	PIP	P-PKLB	80	80
S243	P-YCOR	0/1	PIP	P-YCOR	1	1
S244	P-PALIDL2	0/1	PIP	P-PALIDL2	0	0
S245	P-PALIDL1	0···3	PIP	P-PALIDL1	1	1
S246	P-PALIDL0	0/1	PIP	P-PALIDL0	0	0
S247	P-PKBOOST	0/1	PIP	P-PKBOOST	1	1
S248	P-CLPLEN	0···3	PIP	P-CLPLEN	0	0
S249	P-SCMREL	0···3	PIP	P-SCMREL	2	2
S250	P-SCMIDL	0···7	PIP	P-SCMIDL	5	5
S251	P-SECDIV	0/1	PIP	P-SECDIV	1	1
S252	P-BELLIIR	0/1	PIP	P-BELLIIR	1	1
S253	P-PALINC1	0/1	PIP	P-PALINC1	0	0
S254	P-PALINC2	0/1	PIP	P-PALINC2	0	0
S255	P-LOCKSP	0···3	PIP	P-LOCKSP	3	3
S256	P-SECACCL	0···7	PIP	P-SECACCL	5	5
S257	P-SECACC	0/1	PIP	P-SECACC	1	1
S258	P-ADLCK	0/1	PIP	P-ADLCK	1	1
S259	P-ADLCKSEL	0/1	PIP	P-ADLCKSEL	1	1

Setting Mode 2-2

ITEM	EEPROM SETTING	DATA RANGE	IC	OSD	INITIAL DATA	SETTING DATA
S260	P-ADLCKCC	0/1	PIP	P-ADLCKCC	1	1
S261	P-CLRANGE	0···3	PIP	P-CLRANGE	1	1
S262	P-NADJ	0···7	PIP	P-NADJ	3	3
S263	P-NSRED	0···7	PIP	P-NSRED	6	6
S264	P-SLLTHD	0···3	PIP	P-SLLTHD	0	0
S265	P-ISHFT	0···3	PIP	P-ISHFT	3	3
S266	P-ENLIM	0/1	PIP	P-ENLIM	1	1
S267	P-DTECT5060	0/1	PIP	P-DTECT5060	1	1
S268	P-VTHRL50	0···127	PIP	P-VTHRL50	41	41
S269	P-BCOROFF	0/1	PIP	P-BCOROFF	0	0
S270	P-VTHRL60	0···127	PIP	P-VTHRL60	60	60
S271	P-VTHRH50	0···15	PIP	P-VTHRH50	8	8
S272	P-VTHRH60	0···15	PIP	P-VTHRH60	13	13
S273	P-CLMSTGY	0/1	PIP	P-CLMSTGY	0	0
S274	P-SLLTHDV	0···7	PIP	P-SLLTHDV	0	0
S275	P-VFLYWHLM	0···3	PIP	P-VFLYWHLM	1	1
S276	P-VFLYWHL	0/1	PIP	P-VFLYWHL	1	1
S277	P-CLMPCHRY	0···3	PIP	P-CLMPCHRY	0	0
S278	P-VDETIFS	0/1	PIP	P-VDETIFS	1	1
S279	P-VDETITC	0/1	PIP	P-VDETITC	0	0
S280	P-VLP	0···3	PIP	P-VLP	1	1
S281	P-LATENCY	0···3	PIP	P-LATENCY	3	3
S282	P-FILTBRST	0/1	PIP	P-FILTBRST	1	1
S283	P-CLMPIST	0···31	PIP	P-CLMPIST	26	26
S284	P-UVSEQ	0/1	PIP	P-UVSEQ	0	0
S285	P-ABRTHD	0···15	PIP	P-ABRTHD	0	0
S286	P-ABRSPD	0···7	PIP	P-ABRSPD	0	0
S287	P-CZMEN	0/1	PIP	P-CZMEN	0	0
S288	P-CZMSP	0···3	PIP	P-CZMSP	0	0
S289	P-U-COL-DYN	-30···0···+30	PIP	P-U-COL-DYN	0	0
S290	P-U-COL-STD	-30···0···+30	PIP	P-U-COL-STD	0	0
S291	P-U-COL-SOFT	-30···0···+30	PIP	P-U-COL-SOFT	0	0
S292	P-U-SHP-DYN	-30···0···+30	PIP	P-U-SHP-DYN	0	0
S293	P-U-SHP-STD	-30···0···+30	PIP	P-U-SHP-STD	0	0
S294	P-U-SHP-SOFT	-30···0···+30	PIP	P-U-SHP-SOFT	0	0

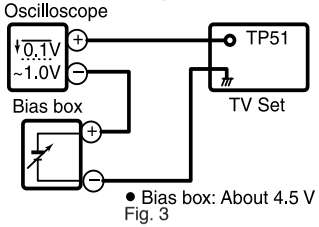
Setting Mode 3-1

ITEM	EEPROM SETTING	DATA RANGE	IC	OSD	INITIAL DATA	SETTING DATA
S301	FMI	0/1	DSP	FMI	0	0
S302	BPB	0/1	DSP	BPB	0	0
S303	BPB2	0/1	DSP	BPB2	1	1
S304	FILTBW-M	0···3	DSP	FILTBW-M	0	0
S305	ID-BYBPF	0/1	DSP	ID-BYBPF	0	0
S306	ID-PGAIN	0/1	DSP	ID-PGAIN	0	0
S307	MPX-P-BW	0/1	DSP	MPX-P-BW	0	0
S308	FMSUB-BW	0/1	DSP	FMSUB-BW	0	0
S309	EIAJ-DEL	0···3	DSP	EIAJ-DEL	0	0
S310	NDETPB	0/1	DSP	NDETPB	0	0
S311	NICDEEM	0/1	DSP	NICDEEM	0	0
S312	NLOERLIM	0···255	DSP	NLOERLIM	100	100
S313	NUPERLIM	0···255	DSP	NUPERLIM	200	200
S314	FILTBW	0···3	DSP	FILTBW	0	0
S315	OVMTHR	0···3	DSP	OVMTHR	1	1
S316	DECLEV	0···31	DSP	DECLEV	16	7
S317	MONOLEV	0···31	DSP	MONOLEV	16	5
S318	NICLEV	0···31	DSP	NICLEV	16	18
S319	SAPLEV	0···31	DSP	SAPLEV	16	6
S320	ADCLEV	0···31	DSP	ADCLEV	16	13
S321	IISLEV	0···31	DSP	IISLEV	16	0
S322	BBEC-ON	0···15	DSP	BBEC-ON	0	15
S323	BBEP-ON	0···15	DSP	BBEC-OFF	0	8
S324	BBEC-OFF	0···15	DSP	BBEP-ON	0	5
S325	BBEP-OFF	0···15	DSP	BBEP-OFF	0	7
S326	MAINLOUD	0/1	DSP	MAINLOUD	0	0
S327	MAINLONA	0···7	DSP	MAINLONA	3	0
S328	MAINLOCH	0···3	DSP	MAINLOCH	0	0
S329	INSOEF	0···7	DSP	INSOEF	3	4
S330	AVLMOD	0···7	DSP	AVLMOD	0	5
S331	AVLWGT	0/1	DSP	AVLWGT	1	1
S332	AVLLE	0···15	DSP	AVLLE	7	10
S333	SRS3DCEN	0···15	DSP	SRS3DCEN	1	7
S334	SRS3DSP	0···15	DSP	SRS3DSP	0	0
S335	SRS3DBYP	0/1	DSP	SRS3DBYP	0	0
S336	CLIPMANAGE	0···4	DSP	CLIPMANAGE	0	4
S337	VDSMIXLEV	0···5	DSP	VDSMIXLEV	3	5
S338	DBEADR	0···63	DSP	DBEADR	0	0
S339	DBECOEF-LBS	0···255	DSP	DBECOEF-LBS	0	0
S340	DBECOEF-MBS	0···15	DSP	DBECOEF-MBS	0	0
S341	DUBADR	0···255	DSP	DUBADR	0	0
S342	DUBCOEF-LSB	0···255	DSP	DUBCOEF-LBS	0	0
S343	DUBCOEF-MSB	0···15	DSP	DUBCOEF-MBS	0	0
S344	BAMAMO	0···3	DSP	BAMAMO	0	1
S345	BAMASUB	0/1	DSP	BAMASUB	0	0
S346	BAMAFC	0···15	DSP	BAMAFC	0	12
S347	BASS-MV	0···31	DSP	BASS-MV	16	31
S348	TREB-MV	0···31	DSP	TREB-MV	16	25
S349	EQ100-MV	0···31	DSP	EQ100-MV	12	20
S350	EQ300-MV	0···31	DSP	EQ300-MV	12	16
S351	EQ1K-MV	0···31	DSP	EQ1K-MV	12	19
S352	EQ3K-MV	0···31	DSP	EQ3K-MV	12	16
S353	EQ8K-MV	0···31	DSP	EQ8K-MV	12	20
S354	BASS-MS	0···31	DSP	BASS-MS	16	31
S355	TREB-MS	0···31	DSP	TREB-MS	16	25
S356	EQ100-MS	0···31	DSP	EQ100-MS	12	20
S357	EQ300-MS	0···31	DSP	EQ300-MS	12	17
S358	EQ1K-MS	0···31	DSP	EQ1K-MS	12	13

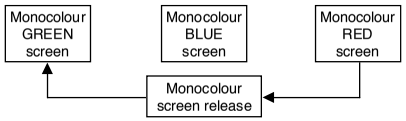
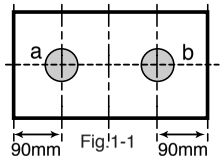
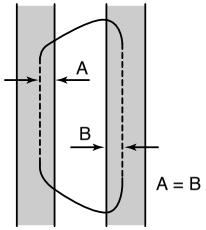
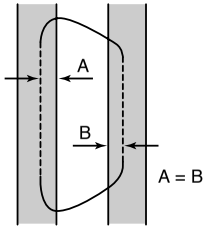
Setting Mode 3-2

ITEM	EEPROM SETTING	DATA RANGE	IC	OSD	INITIAL DATA	SETTING DATA
S359	EQ3K-MS	0···31	DSP	EQ3K-MS	12	17
S360	EQ8K-MS	0···31	DSP	EQ8K-MS	12	20
S361	BASS-NW	0···31	DSP	BASS-NW	16	31
S362	TREB-NW	0···31	DSP	TREB-NW	16	25
S363	EQ100-NW	0···31	DSP	EQ100-NW	12	13
S364	EQ300-NW	0···31	DSP	EQ300-NW	12	16
S365	EQ1K-NW	0···31	DSP	EQ1K-NW	12	19
S366	EQ3K-NW	0···31	DSP	EQ3K-NW	12	16
S367	EQ8K-NW	0···31	DSP	EQ8K-NW	12	13
S368	BASS-CT	0···31	DSP	BASS-CT	16	31
S369	TREB-CT	0···31	DSP	TREB-CT	16	25
S370	IDMOD-SE	0···3	DSP	IDMOD-SE	0	0
S371	BPR-VOL	0···60	DSP	BPR-VOL	20	30
S372	DEMUT-DLAY	0···16	DSP	DEMUT-DLAY	8	8
S373	AV-OUT LV	0···255	DSP	AV-OUT LV	16	18

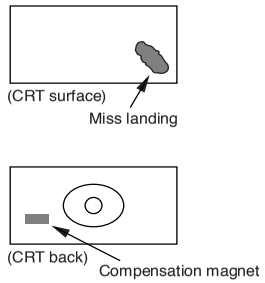
PIF ADJUSTMENT

No.	Adjustment point	Adjustment condition/procedure	Waveform or remarks
1	**RF-AGC TAKE OVER POINT ADJUSTMENT (I²C BUS CONTROL)**	1. Receive "PAL COLOR BAR" signal. Signal Strength: 54 ± 1dB_V (75 ohm termination) 2. Connect the oscilloscope to TP53 (Tuner's AGC Terminal) as shown in figure 3-1.  ● Bias box: About 4.5 V Fig. 3 3. Select "RF-AGC" item in the Adjustment Mode. Adjust the "RF-AGC" bus data to obtain the Tuner output pin drop 0.1V ~ 1.0V below maximum voltage. 4. Change the antenna input signal to 63 ~ 67dB_V, and make sure there is no noise. 5. Set the RF AGC to 0 - 6 V with no saturation with the waveform. 6. Turn up the input signal to 90 ~ 95 dB_B to be sure that there is no cross modulation beat.	

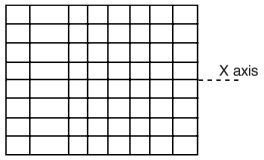
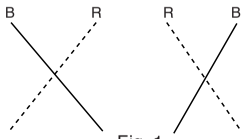
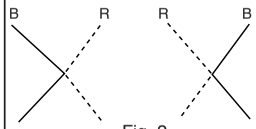
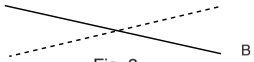
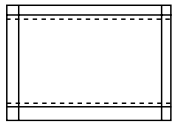
PURITY ADJUSTMENT

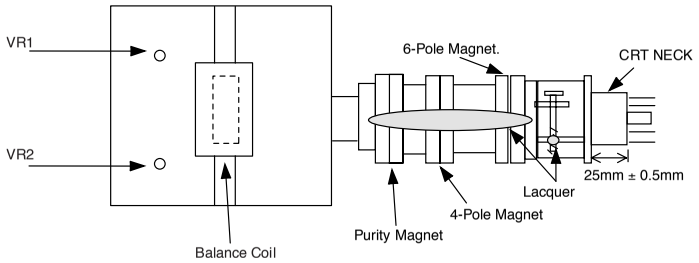
No.	Adjustment point	Adjustment conditions/procedure	Waveform or remarks
1	**PURITY ADJ.**	1. Select the green monocolor screen with remote contoller, and set the beam current of 1.7mA with the contrast control. 2. Degauss the CRT enough with the degausing coil. NOTE: Follow the job instruction manual to adjust the magnetic field. 3. The purity magnet must be previously set at the 0 magnetic field, and the convergence must be adjusted to be rough. With P-MAG, adjust it to the center - rank A. 4. Observe the points a,b, as shown in Fig.1-1 through the microscope. Move DY fore and aft to set the landing at the point (Rank A). 5. If the a/b balance is poor, compensate it to the center "Rank AB". 6. Aline it to zero, keeping the raster rotation in the east direction. 6. Tighten the deflection coil fastening screws. ● Tightening torque : 108N ± 20N (11Kgf ± 2Kgf) 8. Checking the CRT corner area, bond the magnetic sheet to set the landing at rank A for compensation. **Note: Apply the adjustment after aging with the beam current 1700 ± 50μA or more for 30 minutes or more.** **Note: Select the service mode, and press the monocolor key of R/C for process, and the monocolor screen (green) will be selected.** * Every push of the monocolour key changes the screen as follows.  * Adjustment for uniformity is change to another content. Please refer to the following page.	 Fig.1-1  Fig. 1-2 Rank "A" (on the right of the CRT)  Fig. 1-3 Rank "A" (on the left of the CRT) * Continuosly press the monocolour key 1 second or more, and the monocolour mode will be selected without the service mode. *Even with TEXT key or "R/G/B" key, it can be directly switched to each monocolor screen.

PURITY ADJUSTMENT

No.	Adjustment point	Adjustment conditions/procedure	Waveform or remarks
2	**Uniformity adjustment (To perform after the purity and convergence adjustment.)**	Before adjustment begin,Horizontal magnetic field = 0G Vertical magnetic field = Each destination's adjustment magnetic field. Make sure to degauss it. (North direction Red uniformity) 1. Horizontal mf = Set to monocolor screen red and adjust to +0.25G. 2. Pay attention to the edge of CRT,if the landing is poor adjust by attaching the the compensation magnet at the back of CRT. (refer to Fig-1) (South direction Red uniformity) 1. Horizontal mf = Set to monocolor screen red and adjust to -0.25G. 2. Pay attention to the edge of CRT ,if the landing is poor adjust by attaching the compensation magnet at the back of CRT. (The same method is applied for adjustment of monocolor screen blue for blue uniformity ,and changing both the magnetic field for north and south direction.) * During the pasting of compensation magnet , use the crosshatch pattern . Make sure there is no blur or bendlines occur. If the blur or bend are serious,adjust the location of compensation magnet to make it better.	 Fig. 1

CONVERGENCE ADJUSTMENT

No.	Adjustment point	Adjustment conditions/procedure	Waveform or remarks
1	**CONVERGENC ADJ. (To be done after the purity adjustment.)**	1. Receive the " Crosshatch Pattern" signal. 2. Using the remote controller, call NORMAL mode. **(Static convergence)** 1. Overlap blue and red with the open-/closing angle and rotation of the 4 pole magnet. 2. Overlap green on blue and red with the open-/closing angle and rotation of the 6 pole magnet. **(Dynamic convergence)** 1. Fix the wedges in a position so that the deflection york neck is at the center of top bottom and left right. (Straight line and without any blur horizontal / vertical line). 2. Adjust the Red, Blue, upper and lower of the centre y axis on the screen by using the Volume (VR2, VR1)at the deflection york. (Refer to fig.1 and fig.2) 3. If the Horizontal Red, Blue(XV) on the screen centre X axisis shifted, correct the Red, Blue (XV) by adjusting the balance coil on the deflection york. (Refer to Fig. 3) 4. After confirm that there is no problems on the entire screen ,bond each wedge on CRT and glass tape on it. Fastening the screws of DY and magnet unit (purity , 4 - pole and 6 pole), then coat the lacquer paint on DY fastening screw and magnet unit fastening screw. Note: In case of poor convergence adjustment on the top and bottom and of the screen , adjust DY by swing rightward and leftward. (Refer to Fig-4)	  Fig. 1 Adjust by VR1  Fig. 2 Adjust by VR2  Fig. 3 Adjust by Balance Coil  Fig. 4 Adjust by Swing DY



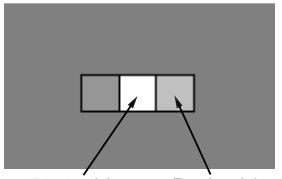
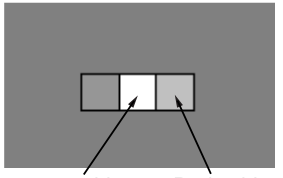
FOCUS ADJUSTMENT

No.	Adjustment point	Adjustment conditions/procedure	Waveform or remarks
1	**FOCUS ADJUSTMENT**	1. Receive E-5CH (Monoscop pattern). 2. With the remote controller, make the image normal. 3. Adjust the focus VR to make the character"575" on left bottom of monoscope as fine as possible.	

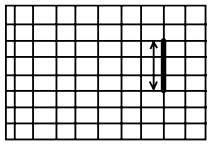
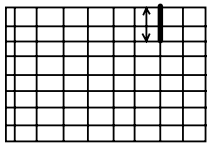
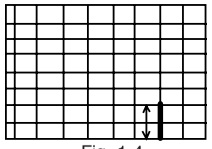
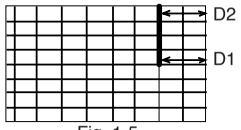
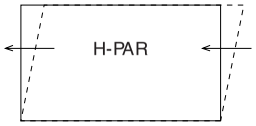
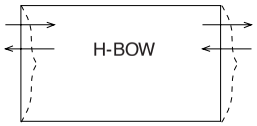
CUT-OFF, BACKGROUND AND SUB-CONTRAST ADJUSTMENT

No.	Adjustment point	Adjustment conditions/procedure	Waveform or remarks
1	**CRT CUTOFF ADJUSTMENT (I²C BUS CONTROL)**	**Note :** **1. Before CRT cutoff adjustment, make sure following items are in INITIAL DATA.** **a) A063 CUT-RS = 32** **b) A064 CUT-GS = 32** **c) A114 CUT OFF = 6** 1. Switch TV to video mode , blue back off , with no video signal and Press R/C to set picture into normal condition. 2. Go to service mode at adjustment mode item A115 (VG2). 3. Adjust screen voltage until retrace line appear, the following OSD will appear at bottom of screen. UNSTABLE OUT ABOVE 4. Finally , slowly decrease the screen variable resistor until following OSD appear. STABLE IN ABOVE / BELOW * * The last OSD row is the indication of the screen voltage value. If it show "BELOW", please increase the screen voltage and vice versa until "STABLE" AND "IN" OSD appear. Note :No matter the indication of last row's OSD is indicate "ABOVE" or "BELOW", the important thing is OSD change to "STABLE" and "IN".	
2	**WHITE BALANCE BACKGROUND I²C BUS ADJUSTMENT (AV-IN SIGNAL)**	1. Receive the internal RF monoscope pattern. 2. Make the picture normal with the remote controller. 3. Connect the beam ammeter between terminal of R623. 4. Coarsely confirm the beam current to approx. 1.7mA. 5. Receive the window pattern with AV input. 6. With the data of DRI-GS and DRI-BS, adjust the color temperature of the 50% white. 7. Adjust the right dark area of the window to 12300K with CUT-RS and CUT-GS. 8. Go back to 50% white area to check colour temperature, if out of range, please go back to step (6). Note 1: Apply this adjustment after aging 30 min or more with the beam current 1700 ± 50μA. (On the white or green monocolor screen) 2:The colour temperature is based on the shipment destination as shown in Table 2-1 at page 6. 3: Adjust DRI-GC/GW, DRI-BC/BW , CUT-RW/C and CUT-GW/C as following DATA, after finishing DRI-BS and DRI-GS DATA adjustment. CUT-RW/C = CUT-RS CUT-GW/C = CUT-GS DRI-RW = 32 (FIXED), DRI-RS = 32 (FIXED) DRI-BC = "DRI-BS" (For 7500_K, 12300_K, 17000_K and 18000_K Condition)	7500K X : 0.300 Y : 0.310 18000K X : 0.255 Y : 0.255 17000K X : 0.261 Y : 0.261 12300K X : 0.272 Y : 0.275 (With Monolta color thermometer CA-100) * 12300_K DRI-GW = "DRI-GS" - 7 DRI-BW = "DRI-BS" - 7 DRI-GC = "DRI-GS" - 7 DRI-RC = 25 * 17000_K & 18000_K DRI-GW = "DRI-GS" - 7 DRI-BW = "DRI-BS" - 7 DRI-GC = "DRI-GS" - 5 DRI-RC = 27 * 7500_K DRI-GW = "DRI-GS" - 5 DRI-BW = "DRI-BS" - 5 DRI-GC = "DRI-GS" - 7 DRI-RC = 25

CUT-OFF, BACKGROUND AND SUB-CONTRAST ADJUSTMENT

No.	Adjustment point	Adjustment conditions/procedure	Waveform or remarks
3	**WHITE BALANCE BACKGROUND I²C BUS ADJUSTMENT (DVD SIGNAL)**	1. The window pattern is received with DVD signal (component signal). 2. Apply the adjustment in the same manners as 2 (AV-IN SIGNAL) and subsequence above. (DRI-GS-DVD, DRI-BS-DVD, CUT-RS-DVD, CUT-GS-DVD) 3. Select the SUB-CONTRAST adjustment mode with the remote controller, and adjust 50% white to 165 ± 10cd. Apply the adjustment after the end of 2 (AV-IN SIGNAL). Note: 1. All of the DRI-GW/C-DVD & DRI-BW/C-DVD can be obtain by using same calculation as white balance adjustment above (No.2). CUT-RW/C-DVD and CUT-GW/C-DVD setting data are as follow. CUT-RW/C-DVD = CUT-RS-DVD CUT-GW/C-DVD = CUT-GS-DVD	Note 1: Use the window pattern of the signal generator SX-1006 for adjustment. 
4	**SUB-BRIGHTNESS ADJUSMENT (I²C BUS CONTROL) (AV-IN SIGNAL)**	1. Receive the window pattern with AV input. 2. Make the image normal with the remote controller. 3. Select the sub- bright adjustment mode with the remote controller, and adjust the right dark white area of the window pattern to 3.0 cd ± 0.5cd.	Note 1: Use "Y" of Minolta color analyzer CA-100 in adjustment. Note 2: Use the window pattern of the signal. generator SX-1006 for adjustment. 
5	**SUB-BRIGHTNESS ADJUSMENT (I²C BUS CONTROL) (DVD SIGNAL)**	1. Select DVD mode. 2. Receive the signal of the DVD signal generator . (Component signal) (Window Pattern) 3. Make the image normal with the remote controller. 4. Select the SUB-BRIGHT adjustment mode (DVD) , and adjust the right dark white area of the window pattern to 3.0 cd ± 0.5cd of the window pattern.	
6	**SUB-CONTRAST I²C BUS ADJUSMENT (AV-IN SIGNAL)**	1. Receive the window pattern with AV input. 2. Make the image normal with the remote controller. 3. Select the SUB-CONTRAST adjustment mode with the remote controller, and adjust 50% white to 130 ± 10cd. Note : Make sure the TV set already in the RF receiving atate before changing to AV mode to continue with this adjustment (no power OFF from the previous adjustment).	
7	**SUB-CONTRAST I²C BUS ADJUSMENT (DVD SIGNAL)**	1. Select the DVD mode. 2. Receive the signal of the DVD signal generator. (Component signal) (Window Pattern) 3. Select the SUB-CONTRAST adjustment mode (DVD) with the remote controller, and adjust 50% white to 130 ± 10cd. Note : Make sure the TV set already in the RF receiving atate before changing to AV mode to continue with this adjustment (no power OFF from the previous adjustment).	

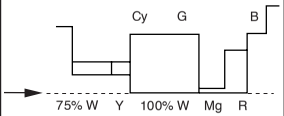
HORIZONTAL AND VERTICAL DEFLECTION LOOP ADJUSTMENT

No.	Adjustment point	Adjustment conditions/procedure	Waveform or remarks
	MAIN SCREEN ADJUSTMENT		
1	**V-SLOPE**	Adjust V-Slope by Volume Up / Down Remote Control. Refer to Fig. 1.1. (monoscope)	A : Out of spec B : OK C : Out of spec
	VER-AMP-N50	Adjust the overscan to 8.5%. (monoscope)	
	VER-SHI-N50	Align the center of the screen to the geometric center of CRT. (monoscope)	
	HOR-SHI-N50	Align the center of the screen to the geometric center of CRT. (monoscope)	 Fig. 1-2
	EW-W-N50	Adjust the overscan to 8.5%. (monoscope)	
	V-LINE	Adjust the linearity to the best. (monoscope)	
	V-S CORR	Already preset.(Adjust this unless the linearity is achieved.) (monoscope)	 Fig. 1-3
	V-SCROLL	Already preset..	
	VX-NORMAL	Already preset .	
	H-PAR	Adjust the 2nd vertical line from the end of the crosshatch pattern. Refer to Fig 1.6. (crosshatch)	 Fig. 1-4
	H-BOW	Adjust the 2nd vertical line from the end of the crosshatch pattern. Refer to Fig 1.7. (crosshatch)	
	E/W-PAR	Adjust the 2nd vertical line from the right end of the crosshatch pattern so that the middle 4 blocks are straight. Refer to Fig 1-2. (crosshatch)	 Fig. 1-5
	UPCOR-PAR	Adjust the 2nd upper vertical line from the right end of the crosshatch pattern so that the upper line are straight. Refer to Fig 1-3. (crosshatch)	
	LOCOR-PAR	Adjust the 2nd lower vertical line from the right end of the crosshatch pattern so that the bottom line are straight. Refer to Fig 1-4. (crosshatch)	 Fig. 1-6
	EW-TRAP	Adjust the 2nd vertical line from the right end of the crosshatch pattern so that the D1 (center area of the second vertical line - edge of screen) and D2 (top area of the second vertical line - edge of screen) are same. Refer to Fig 1-5. (crosshatch)	
	VER-AMP-N60	Adjust the overscan to 10%. (monoscope)	 Fig. 1-7
	VER-SHI-N60	Align the center of the screen to the geometric center of CRT. (monoscope)	

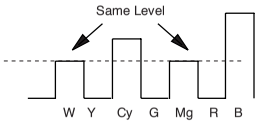
HORIZONTAL AND VERTICAL DEFLECTION LOOP ADJUSTMENT

No.	Adjustment point	Adjustment conditions/procedure	Waveform or remarks
	VHOR-SHI-N60	Align the center of the screen to the geometric center of CRT. (monoscope)	
	EW-W-N60	Align the center of the screen to the geometric center of CRT. (monoscope) **NOTE :** **There are no separate adjustment for 16:9 mode and Normal mode adjustment.** **The 16:9 (Panorama mode 50/60Hz) data need to follow the adjusted data for Normal mode (50/60Hz). Please set the data as below.** **VER-AMP-P50 = VER-AMP-N50** **VER-SHI-P50 = VER-SHI-N50** **HOR-SHI-P50 = HOR-SHI-N50** **EW-W-P50 = EW-W-N50** **VER-AMP-P60 = VER-AMP-N60** **VER-SHI-P60 = VER-SHI-N60** **HOR-SHI-P60 = HOR-SHI-N60** **EW-W-P60 = EW-W-N60**	

PAL CHROMA ADJUSTMENT

No.	Adjustment point	Adjustment conditions/procedure	Waveform or remarks
1	**SUB COLOUR (I²C BUS CONTROL)**	1. Receive the "PAL Color Bar" signal. 2. Make the image normal with the remote controller. 3. Connect the oscilloscope to TP48R (IC851 #9). (Use Probe 10:1) Range : 2 V/Div Sweep Time : 20 μsec/Div 4. Set the sub color adjustment mode with the remote controller, and vary the sub color data to make 100% W of the color bar and RED at the same level for adjustment shown in Fig. 1-1.	 Fig. 1-1

NTSC CHROMA ADJUSTMENT

No.	Adjustment point	Adjustment conditions/procedure	Waveform or remarks
1	**SUB-TINT (I²C BUS CONTROL)**	1.Receive the "NTSC 3.58 Colour Bar" signal through AV IN. 2. Connect the oscilloscope to TP47B (P860 Pin6) BLUE-OUT. ● Range : 100mV/Div. (AC)(Use Probe 10:1) ● Sweep time : 10 μsec/Div. 3. Select the "SUB-TINT" item in the ADJUSTMENT MODE.. Adjust the "SUB-TINT" data to obtain the waveform shown as Figure 1.1 (W and Mg same level)	

GAME OPERATION CHECK

No.	Adjustment point	Adjustment conditions/procedure	Waveform or remarks
1	**(For models with GAME only.)**	1. Use the "GAME" key (R/C) to enter the Game Mode. 2. Press the TREBLE UP (code=46H) key (direct key to enter "The Rock" game), and then confirm the position and the function of the game. Note : (A) For the HORIZONTAL position, enter service mode and choose "Setting Mode 1". Key in the alphabic number 114 to enter GAME-HON. Adjust to the proper horizontal position. (B) For the VERTICAL position, remain in same "Setting Mode 1". Key in the alphabic number 115 to enter GAME-VERT-1. Adjust to the proper vertical position. 3. If adjustment OK, then press the "GAME MODE" key to exit to previously viewed channel from the game mode.	

FM RADIO OPERATION CHECK

No.	Adjustment point	Adjustment conditions/procedure	Waveform or remarks
1	**(For models with RADIO only.)**	1. Use the signal generator to set carier frequncy of 89.5 MHz with sound modulation 400Hz. 2. Connect the signal to the FM radio tuner using the RF coaxial cable with female adaptor. 3. Press the "FM RADIO" button of R/C to access the FM RADIO menu. 4. Select the "FREQUENCY" in menu and press the VOL+ key to search the frequency of 89.5 MHz. 5. Confirm the 400 Hz audio is clearly detected. 6. Press the "FM RADIO" button of R/C to exit.	

FUNCTION OPERATION CHECKING (VIDEO AND AUDIO)

No.	Adjustment point	Adjustment conditions/procedure	Waveform or remarks
1	**CONTRAST key**	1. Receive "Monoscope Pattern" signal. 2. Press to MENU mode, then Select Picture Mode and set to select CONTRAST. 3. Press Volume Up/Down key to check whether the CONTRAST effect is OK or not.	
2	**COLOUR key**	1. Receive "Color Bar" signal. 2. Press to MENU mode, then Select Picture Mode and set to select COLOUR. 3. Press Volume Up/Down key to check whether the COLOUR effect is OK or not.	
3	**BRIGHTNESS key**	1. Receive "Monoscope Pattern" signal. 2. Press to MENU mode, then Select Picture Mode and set to select BRIGHTNESS. 3. Press Volume Up/Down key to check whether the BRIGHTNESS effect is OK or not.	
4	**TINT key**	1. Receive the "NTSC Colour Bar" signal thru AV in. 2. Press to MENU mode, then Select Picture Mode and set to selectTINT. 3. Press Volume Up/Down key to check TINT, UP for GREEN direction and DOWN for RED direction whether is OK or not.	
5	**SHARPNESS Key**	1. Receive "Monoscope Pattern" signal. 2. Press to MENU mode, then Select Picture Mode and set to select SHARPNESS. 3. Press Volume Up/Down key to check whether the SHARPNESS effect is OK or not.	
6	**NORMAL Key**	1. Once in PICTURE Mode, and the NORMAL key is pressed, all the settings will be present to normal setting. (Normal setting value for every mode, refer tTable 2.2 on page 20).	**Notes:If nothing is display mean contrast, colour, bright, tint, sharpness are all in normal setting.**
7	**WHITE TEMP**	1. Receive "Monoscope Pattern" signal. 2. Set FUNCTION to select WHITE TEMP. 3. Press Volume Up/Down key to check WHITE TEMP Option, STANDARD: NORMAL SETTING, WARM for more REDDISH direction changing, COOL for more BLUISH direction changing.	

FUNCTION OPERATION CHECKING (VIDEO AND AUDIO)

(Continued)

No.	Adjusting point	Adjusting procedure/conditions	Waveform and others
9	**COLOUR SYSTEM**	1. Receive the "PAL COLOUR BAR" signal, press the COLOUR SYSTEM key to select modes except PAL, check the COLOUR is not working properly. Then, select the "PAL" mode. Check again its colour so that it is working properly. 2. Receive "SECAM COLOUR BAR" signal, press COLOUR SYSTEM key to select modes except SECAM, check the COLOUR is not working properly. Then, select the "SECAM" mode. Check again its colour so that it is working properly. 3. Receive "NTSC 4.43" signal, press COLOUR SYSTEM key to select modes except NTSC4.43, check the COLOUR is not working properly. Then, select the "NTSC 4.43" mode. Check again its colour so that it is working properly. 4. Receive "NTSC 4.43/3.58 COLOUR BAR" signal thru AV, press COLOUR SYSTEM key to select modes except N4.43/3.58, check the COLOUR is not working properly. Then, select the "NTSC 4.43/3.58" mode. Check again its colour so that it is working properly.	
10	**SOUND SYSTEM**	1. Receive "PAL-D/K" signal, press the "SOUND SYSTEM" to select B/G, I. Check the sound output is not working properly. Select D/K and check the sound output to make sure it is working properly. 2. Receive "PAL-I" signal, press the "SOUND SYSTEM" to select B/G, D/K. Check the sound output is not working properly. Select I and check the sound output to make sure it is working properly. 3. Receive "PAL-B/G" signal, press the "SOUND SYSTEM" to select I, D/K. Check the sound output is not working properly. Select B/G and check the sound output to make sure it is working properly.	
11	**HEADPHONE OUTPUT CHECKING**	1. Receive PAL COLOUR BAR with SOUND 400Hz, 100% MODULATION (±50kHz Dev). 2. Maximum volume, and check the headphone output with 400Hz sound and no sound out from speaker. Ref : OUTPUT level of HEADPHONE is as following. Apx. 500mVp-p	
12	**NOISE MUTE CHECKING**	1. Receive "PAL COLOUR BAR" signal. 2. Turn up the volume control to maximum, make sure the sound is heard from the speakers. Then put the unit in no signal state. 3. Check the sound mute is effective. 4. Finally turn sound level of CTV to minimum.	

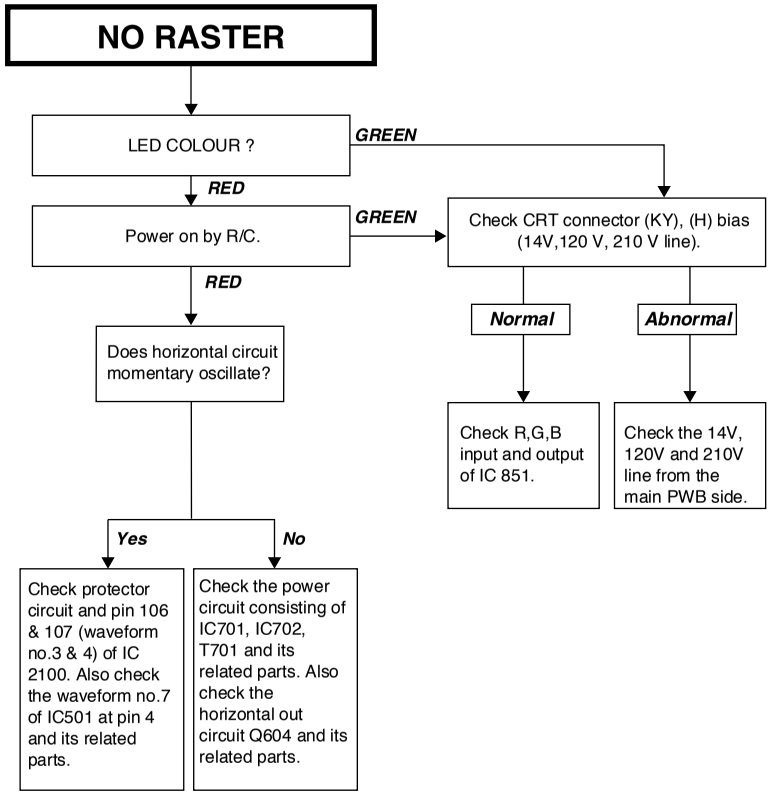
PROTECTOR OPERATION CHECKING

No.	Adjustment point	Adjustment conditions/procedure	Waveform or remarks
1	**H, V PROTECTOR**	1. Receive E-5ch(Monoscopepattern). 2. Connect the bias box to the cathode side (R607) of D604. 3. Set the voltage of the bias box at 10V, and verify that the protector does not operate. 4. Set the voltage of the bias box at 18V, and verify that the protector operate.	Ref : Apx.13.3V.

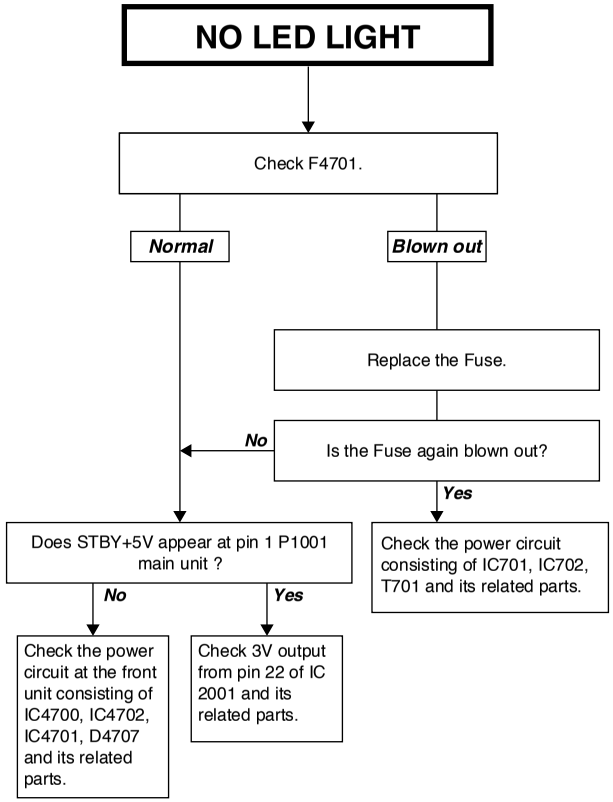
SOUND OUTPUT CHECKING

No.	Adjustment point	Adjustment conditions/procedure	Waveform or remarks
1	**Front speaker output checking**	1. Receive the E-10ch (PAL colour bar). 2. Set the volume to maximum and set the other sound setting as follow. Setting item / #1 / #2 Equalizer / Music / Music Surround / OFF / OFF BBE / OFF / - Balance / 0 / 0 AVL / OFF / OFF Super Bass / OFF / - Bass + / - / ON 3. Connect the voltmeter to the speaker terminal and make sure the reading is 9 ± 1 Vrms.	#1 : Sound setting for model with BBE and Super Bass in the sound menu. #2 : Sound setting for model without BBE and with Bass + in the sound menu.
2	**Rear woofer ouput checking (For model with woofer box only)**	1. Receive the E-10ch (PAL colour bar). 2. Connect the woofer wire from P303 to a 16 ohm dummy load. 3. Set the volume to maximum and set the other sound setting as follow. Equalizer / Music Surround / OFF BBE / OFF Balance / 0 AVL / OFF Super Bass / ON 4. Connect the voltmeter to the dummy load and make sure the reading is 15 ± 1 Vrms.	

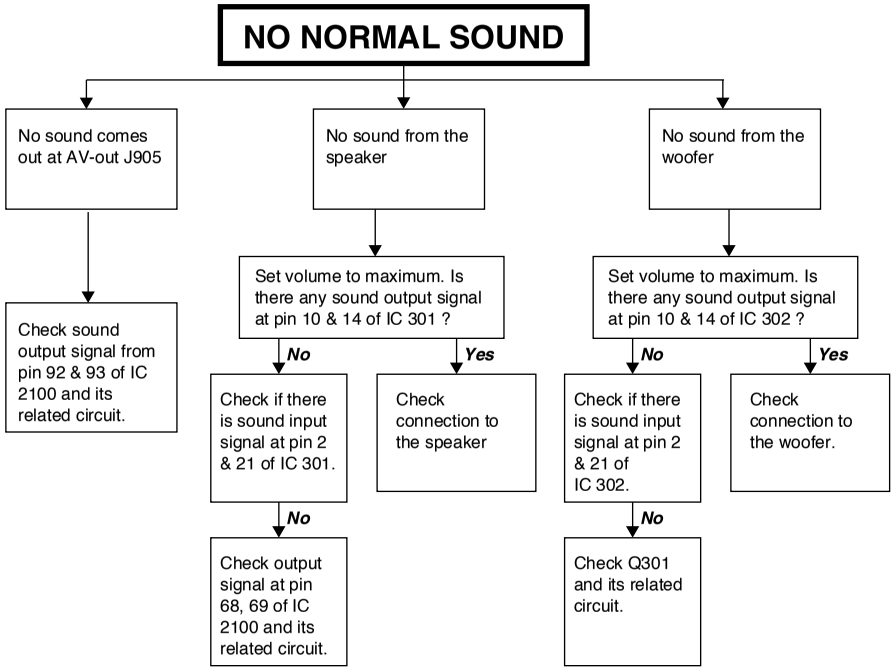
TROUBLE SHOOTING TABLE


NO RASTER
LED COLOUR ?
GREEN
RED
Power on by R/C.
GREEN
Check CRT connector (KY), (H) bias (14V,120 V, 210 V line).
RED
Normal
Abnormal
Does horizontal circuit momentary oscillate?
Check R,G,B input and output of IC 851.
Check the 14V, 120V and 210V line from the main PWB side.
Yes
No
Check protector circuit and pin 106 & 107 (waveform no.3 & 4) of IC 2100. Also check the waveform no.7 of IC501 at pin 4 and its related parts.
Check the power circuit consisting of IC701, IC702, T701 and its related parts. Also check the horizontal out circuit Q604 and its related parts.

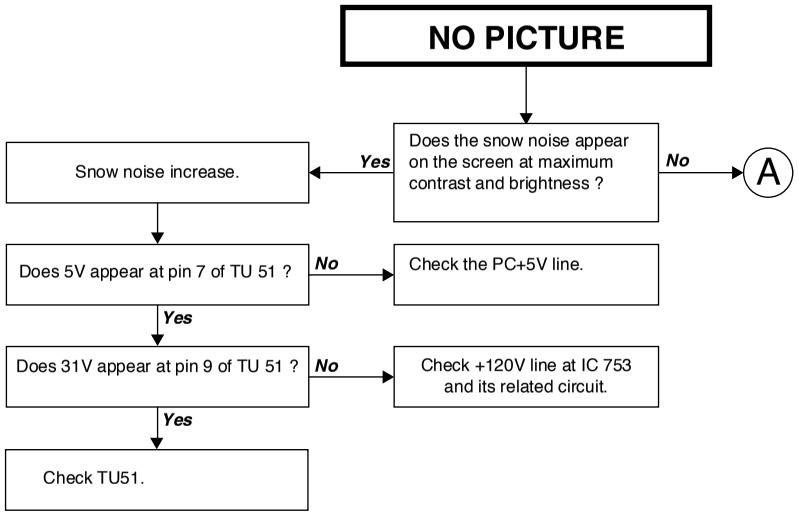
TROUBLE SHOOTING TABLE (Continued)


NO LED LIGHT
Check F4701.
Normal
Blown out
Replace the Fuse.
No
Is the Fuse again blown out?
Yes
Does STBY+5V appear at pin 1 P1001 main unit ?
Check the power circuit consisting of IC701, IC702, T701 and its related parts.
No
Yes
Check the power circuit at the front unit consisting of IC4700, IC4702, IC4701, D4707 and its related parts.
Check 3V output from pin 22 of IC 2001 and its related parts.

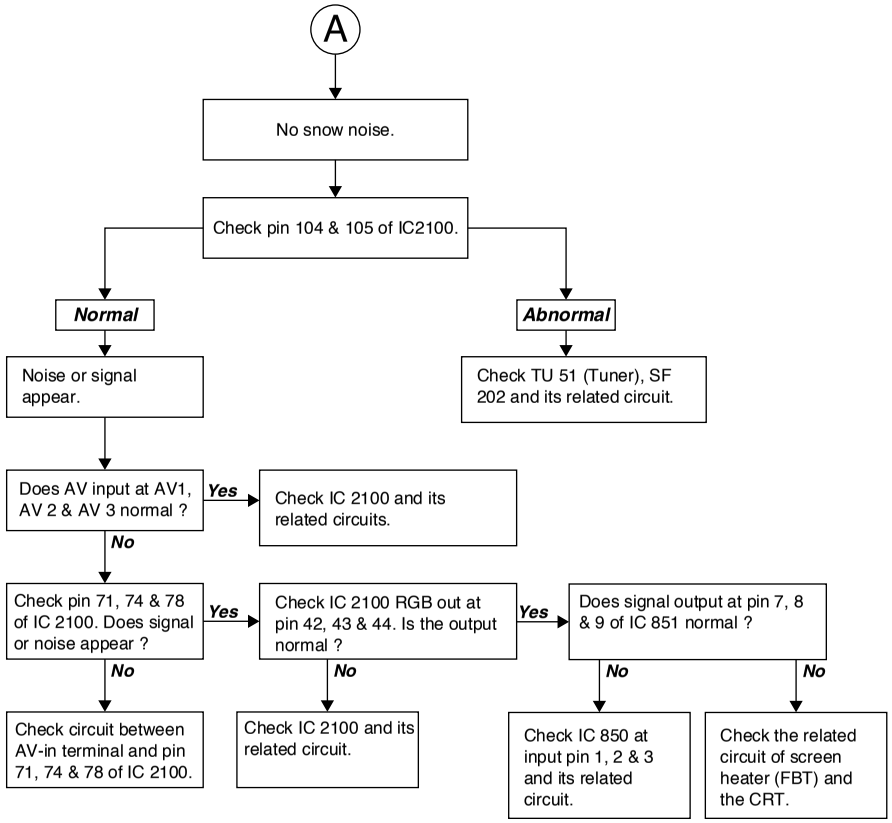
TROUBLE SHOOTING TABLE (Continued)


NO NORMAL SOUND
No sound comes out at AV-out J905
Check sound output signal from pin 92 & 93 of IC 2100 and its related circuit.
No sound from the speaker
Set volume to maximum. Is there any sound output signal at pin 10 & 14 of IC 301 ?
No
Yes
Check if there is sound input signal at pin 2 & 21 of IC 301.
Check connection to the speaker
No
Check output signal at pin 68, 69 of IC 2100 and its related circuit.
No sound from the woofer
Set volume to maximum. Is there any sound output signal at pin 10 & 14 of IC 302 ?
No
Yes
Check if there is sound input signal at pin 2 & 21 of IC 302.
Check connection to the woofer.
No
Check Q301 and its related circuit.

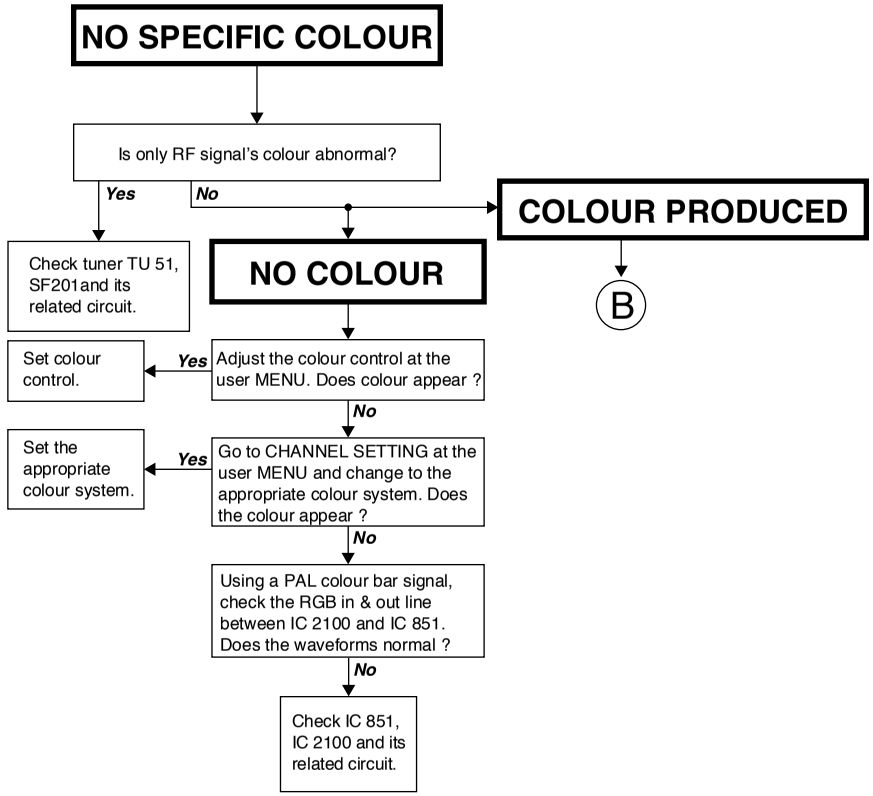
TROUBLE SHOOTING TABLE (Continued)


NO PICTURE
Does the snow noise appear on the screen at maximum contrast and brightness ?
Yes
Snow noise increase.
No
A
Does 5V appear at pin 7 of TU 51 ?
No
Check the PC+5V line.
Yes
Does 31V appear at pin 9 of TU 51 ?
No
Check +120V line at IC 753 and its related circuit.
Yes
Check TU51.

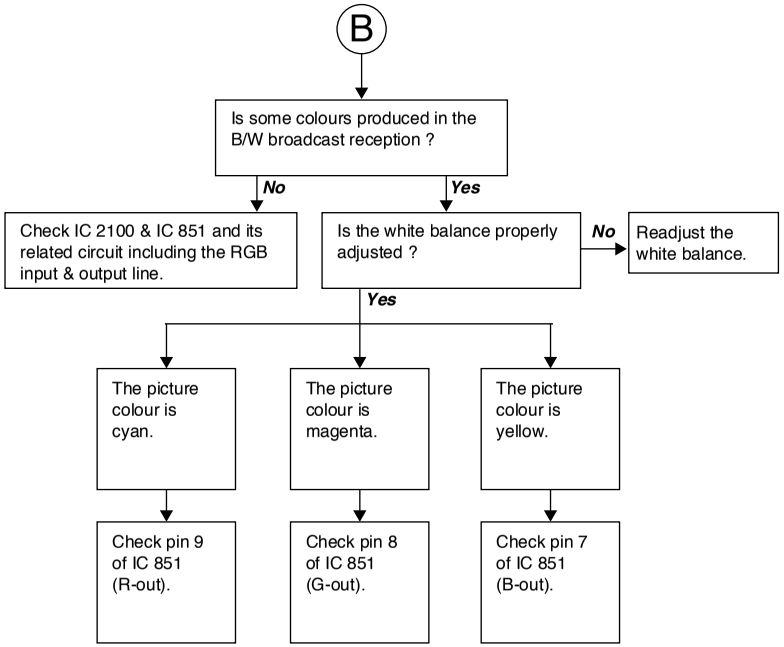
TROUBLE SHOOTING TABLE (Continued)


A
No snow noise.
Check pin 104 & 105 of IC2100.
Normal
Abnormal
Noise or signal appear.
Check TU 51 (Tuner), SF 202 and its related circuit.
Does AV input at AV1, AV 2 & AV 3 normal ?
Yes
Check IC 2100 and its related circuits.
No
Check pin 71, 74 & 78 of IC 2100. Does signal or noise appear ?
Yes
Check IC 2100 RGB out at pin 42, 43 & 44. Is the output normal ?
Yes
Does signal output at pin 7, 8 & 9 of IC 851 normal ?
No
No
No
No
Check circuit between AV-in terminal and pin 71, 74 & 78 of IC 2100.
Check IC 2100 and its related circuit.
Check IC 850 at input pin 1, 2 & 3 and its related circuit.
Check the related circuit of screen heater (FBT) and the CRT.

TROUBLE SHOOTING TABLE (Continued)

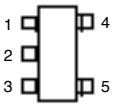

NO SPECIFIC COLOUR
Is only RF signal's colour abnormal?
Yes
No
COLOUR PRODUCED
B
Check tuner TU 51, SF201and its related circuit.
NO COLOUR
Set colour control.
Yes
Adjust the colour control at the user MENU. Does colour appear ?
No
Set the appropriate colour system.
Yes
Go to CHANNEL SETTING at the user MENU and change to the appropriate colour system. Does the colour appear ?
No
Using a PAL colour bar signal, check the RGB in & out line between IC 2100 and IC 851. Does the waveforms normal ?
No
Check IC 851, IC 2100 and its related circuit.

TROUBLE SHOOTING TABLE (Continued)


B
Is some colours produced in the B/W broadcast reception ?
No
Yes
Check IC 2100 & IC 851 and its related circuit including the RGB input & output line.
Is the white balance properly adjusted ?
No
Readjust the white balance.
Yes
The picture colour is cyan.
The picture colour is magenta.
The picture colour is yellow.
Check pin 9 of IC 851 (R-out).
Check pin 8 of IC 851 (G-out).
Check pin 7 of IC 851 (B-out).

SOLID STATE DEVICE BASE DIAGRAM

TOP VIEW

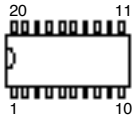


7SET04F

BR24L32V

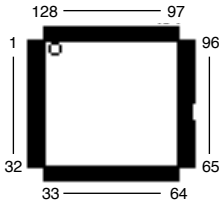
PCF8563S

FXA003W

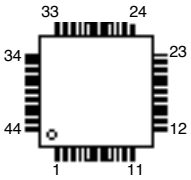


STV9380

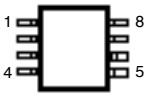
2883E331



RH-IXxxxxWJ



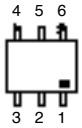
IXA956WJ



C7W66U

IP0254

BR24L04F



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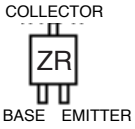
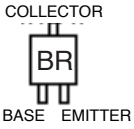
IMX1C



D601AR



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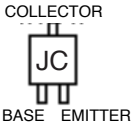
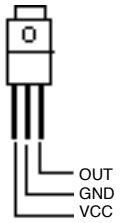
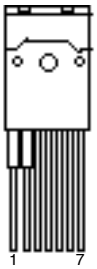


2SC2735

SIDE VIEW



BA005T



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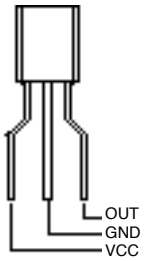
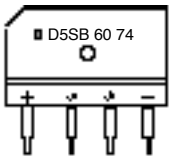


ST600C



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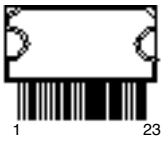
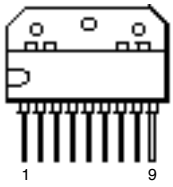


TDA8922B



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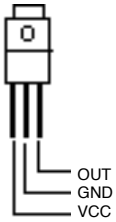

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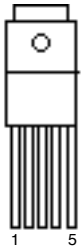

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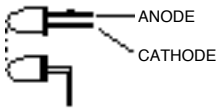

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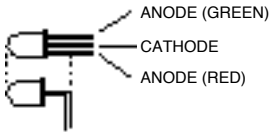

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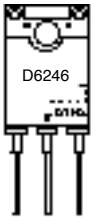

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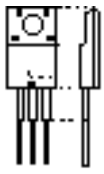
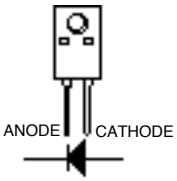


SK2161

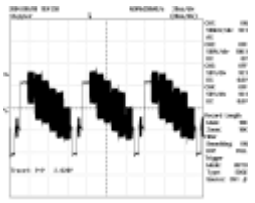


DX0410

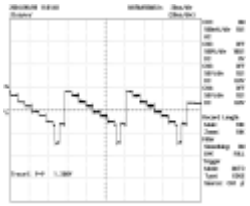
SC3198

PC1815

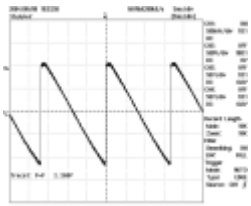
WAVEFORMS



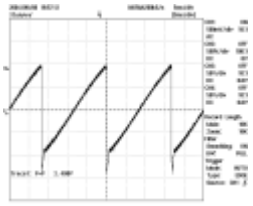
① Horizontal Rate
Pin 1 Vp-p = 2.02 V



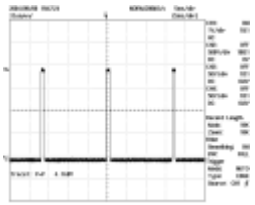
② Horizontal Rate
Pin 2 Vp-p = 1.30 V



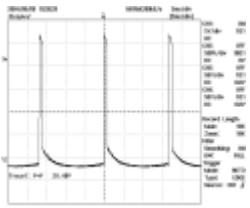
③ Vertical Rate
Pin 3 Vp-p = 2.26 V



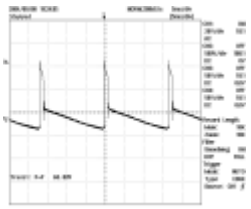
④ Vertical Rate
Pin 4 Vp-p = 2.40 V



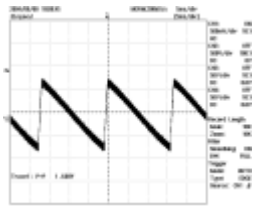
⑤ Vertical Rate
Pin 5 Vp-p = 4.16 V



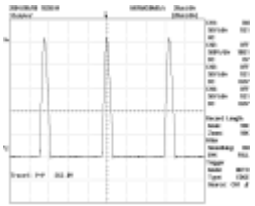
⑥ Vertical Rate
Pin 6 Vp-p = 29.40 V



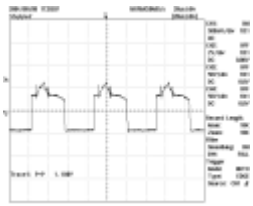
⑦ Vertical Rate
Pin 7 Vp-p = 60.00 V



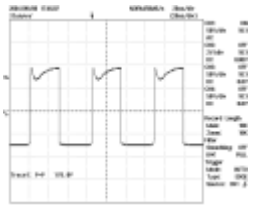
⑧ Vertical Rate
Pin 8 Vp-p = 1.60 V



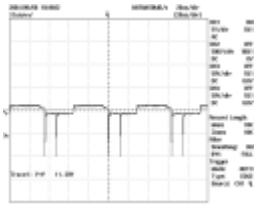
⑨ Horizontal Rate
Pin 9 Vp-p = 262.0 V



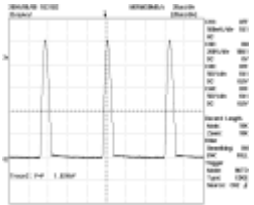
⑩ Horizontal Rate
Pin 10 Vp-p = 262.0 V



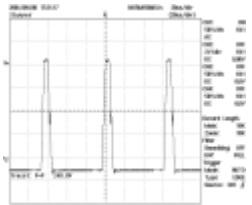
⑪ Horizontal Rate
Pin 11 Vp-p = 176.0 V



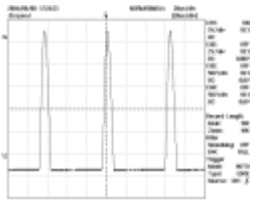
⑫ Horizontal Rate
Pin 12 Vp-p = 11.20 V



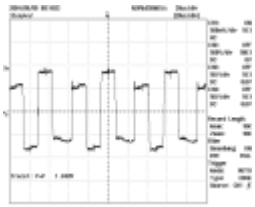
⑬ Horizontal Rate
Pin 13 Vp-p = 1.024 kV



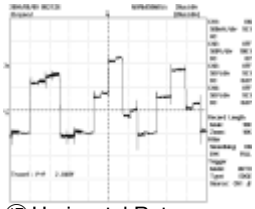
⑭ Horizontal Rate
Pin 14 Vp-p = 248.0 V



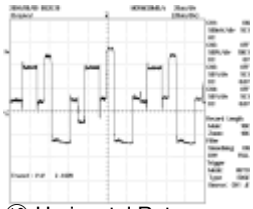
⑮ Horizontal Rate
Pin 15 Vp-p = 31.20 V



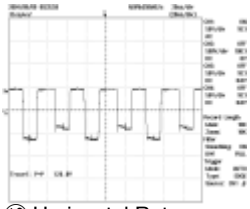
⑯ Horizontal Rate
Pin 16 Vp-p = 1.84 V



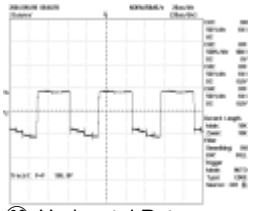
⑰ Horizontal Rate
Pin 17 Vp-p = 2.04 V



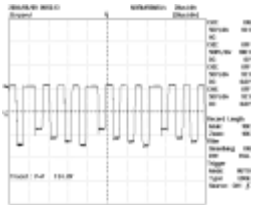
⑱ Horizontal Rate
Pin 18 Vp-p = 2.10 V



⑲ Horizontal Rate
Pin 19 Vp-p = 120.0 V



⑳ Horizontal Rate
Pin 20 Vp-p = 106.0 V

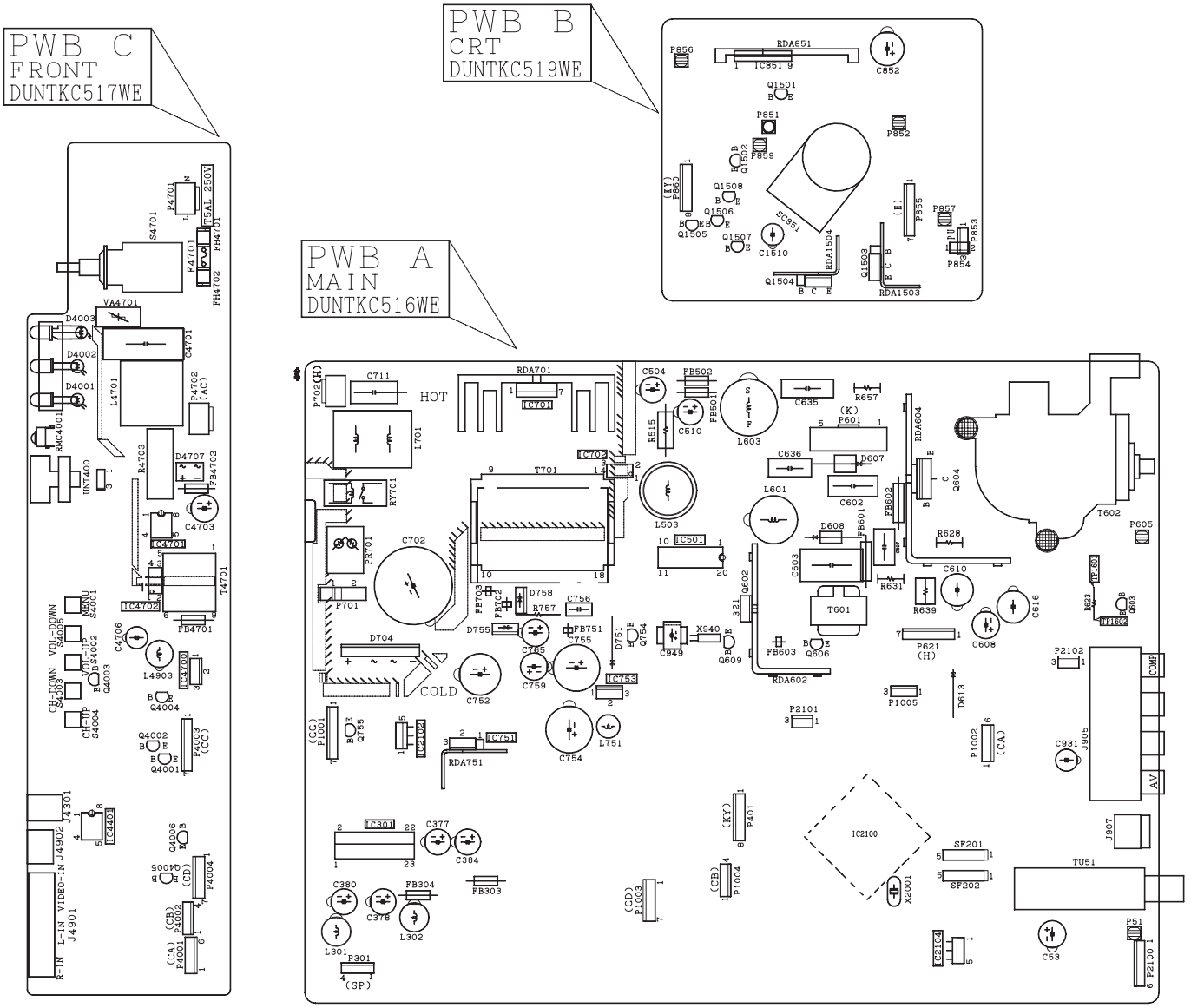


㉑ Horizontal Rate
Pin 21 Vp-p = 134.0 V

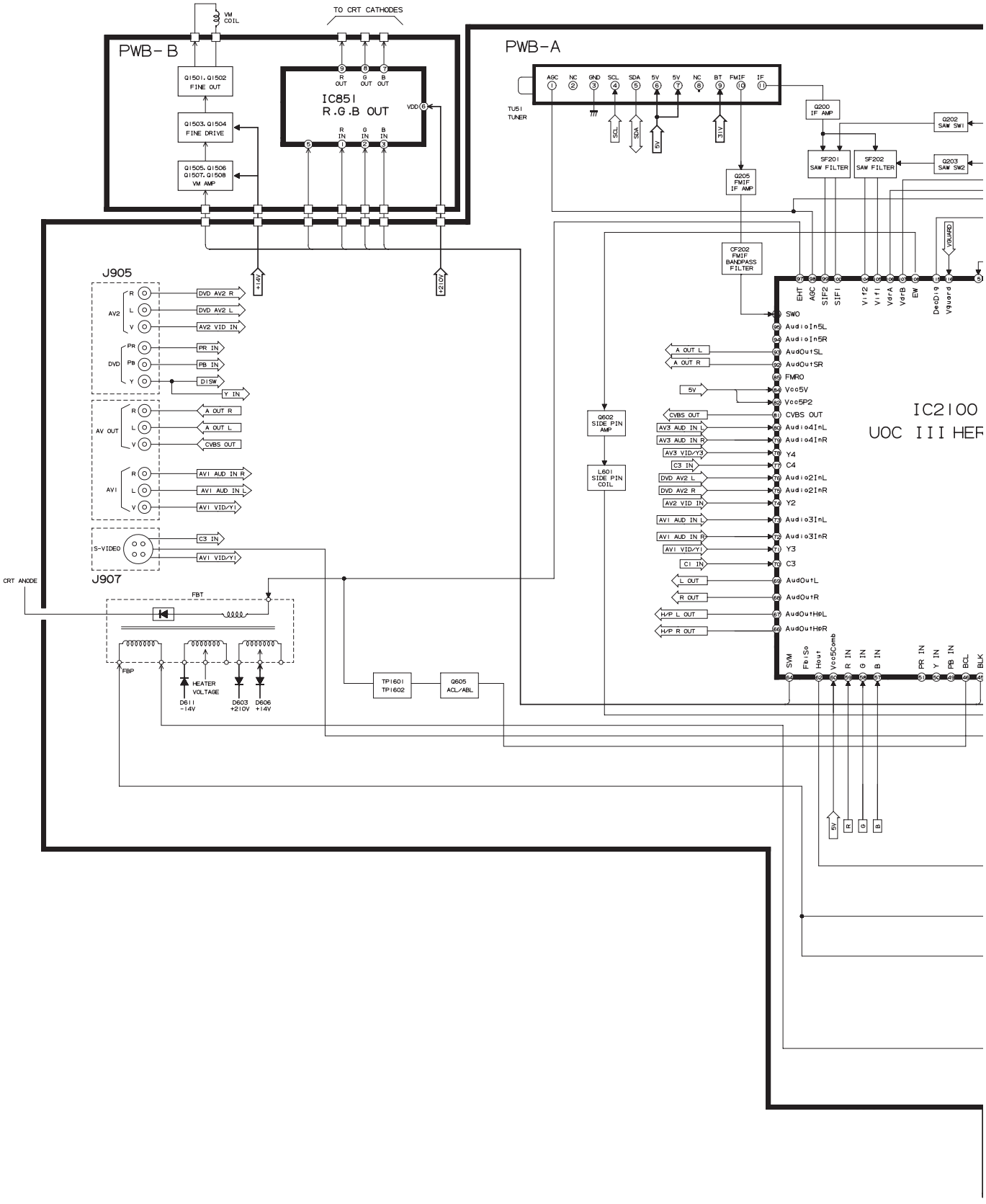
- M E M O -

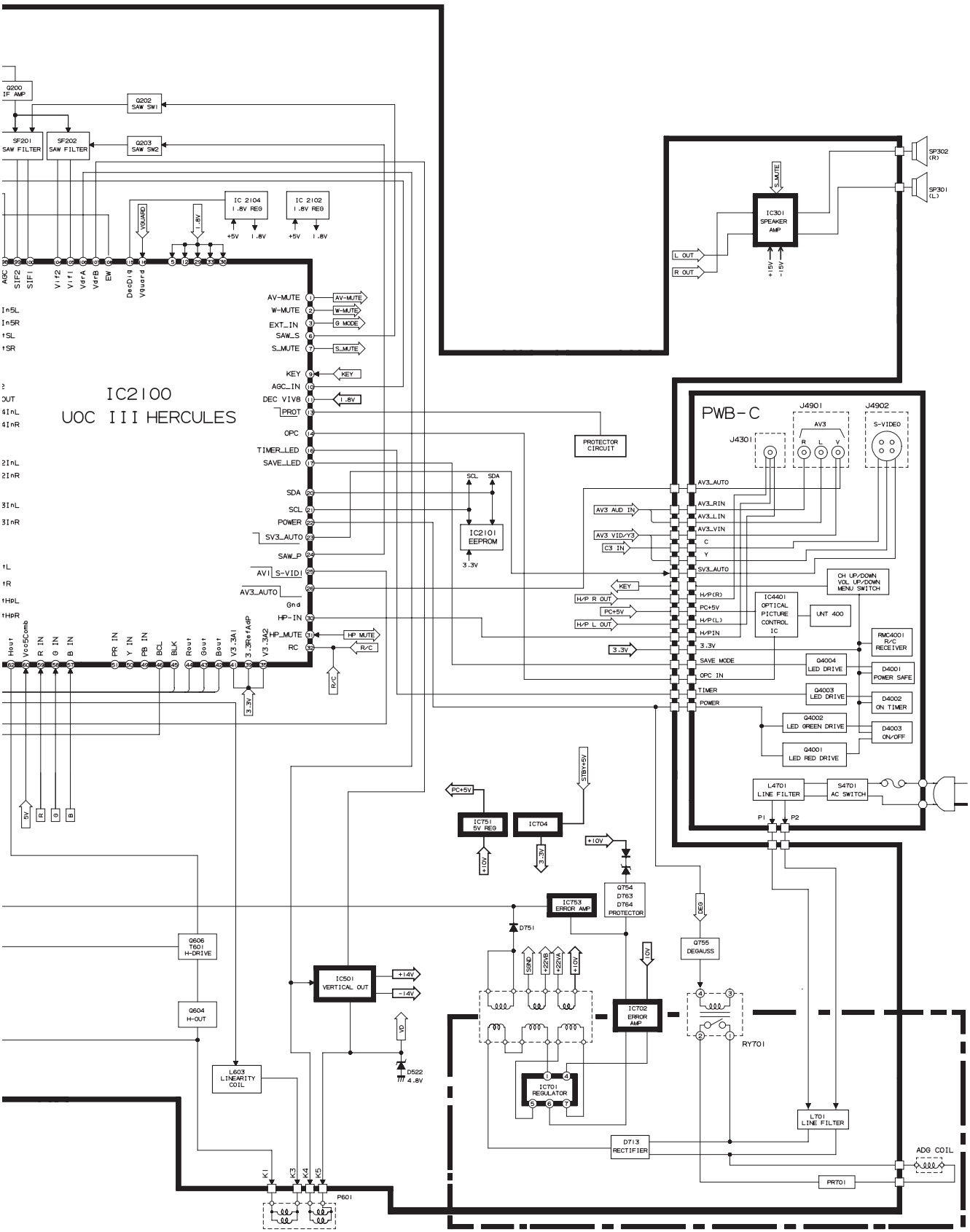
CHASSIS LAYOUT

CHASSIS LAYOUT FOR 29H-FG5A MODEL



BLOCK DIAGRAMS




IC2100
UOC III HERCULES
PWB-C
IC301 SPEAKER AMP
IC2101 EEPROM
IC4401 OPTICAL PICTURE CONTROL IC
IC751 5V REG
IC704
IC753 ERROR AMP
IC702 ERROR AMP
IC701 REGULATOR
IC501 VERTICAL OUT
Q200 IF AMP
Q202 SAW SW1
Q203 SAW SW2
SF201 SAW FILTER
SF202 SAW FILTER
IC 2104 1.8V REG
IC 2102 1.8V REG
PROTECTOR CIRCUIT
Q754 D763 D764 PROTECTOR
Q755 DEGAUSS
RY701
Q606 T601 H-DRIVE
Q604 H-OUT
L603 LINEARITY COIL
D751
D522 4.8V
DT13 RECTIFIER
L701 LINE FILTER
L4701 LINE FILTER
S4701 AC SWITCH
RMC4001 R/C RECEIVER
Q4004 LED DRIVE
Q4003 LED DRIVE
Q4002 LED GREEN DRIVE
Q4001 LED RED DRIVE
D4001 POWER SAFE
D4002 ON TIMER
D4003 ON/OFF
CH UP/DOWN VOL UP/DOWN MENU SWITCH
UNT 400
ADG COIL
PR701
P601
J4901
J4902
J4301
AV3
S-VIDEO
SP302 (R)
SP301 (L)
AV-MUTE
W-MUTE
G MODE
S_MUTE
KEY
HP MUTE
R/C
AV3_AUTO
AV3 AUD IN
AV3 VID/Y3
C3 IN
H/P R OUT
H/P L OUT
PC+5V
3.3V
SAVE MODE
OPC IN
TIMER
POWER
SCL
SDA
L OUT
R OUT
+15V
-15V
+14V
-14V
+10V
STBY+5V

DESCRIPTION OF SCHEMATIC DIAGRAM

SAFETY NOTES:

1. *DISCONNECT THE AC PLUG FROM THE AC OUTLET BEFORE REPLACING PARTS.*
2. *SEMICONDUCTOR HEAT SINKS SHOULD BE REGARDED AS POTENTIAL SHOCK HAZARDS WHEN THE CHASSIS IS OPERATING.*

IMPORTANT SAFETY NOTICE:

PARTS MARKED WITH "⚠" ( ) ARE IMPORTANT FOR MAINTAINING THE SAFETY OF THE SET. BE SURE TO REPLACE THESE PARTS WITH SPECIFIED ONES FOR MAINTAINING THE SAFETY AND PERFORMANCE OF THE SET.

SERVICE PRECAUTION:

THE AREA ENCLOSED BY THIS LINE (▬ ▬ ▬) IS DIRECTLY CONNECTED WITH AC MAINS VOLTAGE.
WHEN SERVICING THE AREA, CONNECT AN ISOLATING TRANSFORMER BETWEEN TV RECEIVER AND AC LINE TO ELIMINATE HAZARD OF ELECTRIC SHOCK.

NOTES:

1. *The unit of resistance "ohm" is omitted. (K = 1000 ohms, M = Meg ohm).*
2. *All resistors are 1/16 watt, unless otherwise noted.*
3. *All capacitors are μF, unless otherwise noted. (P = μμF).*

VOLTAGE MEASUREMENT CONDITIONS:

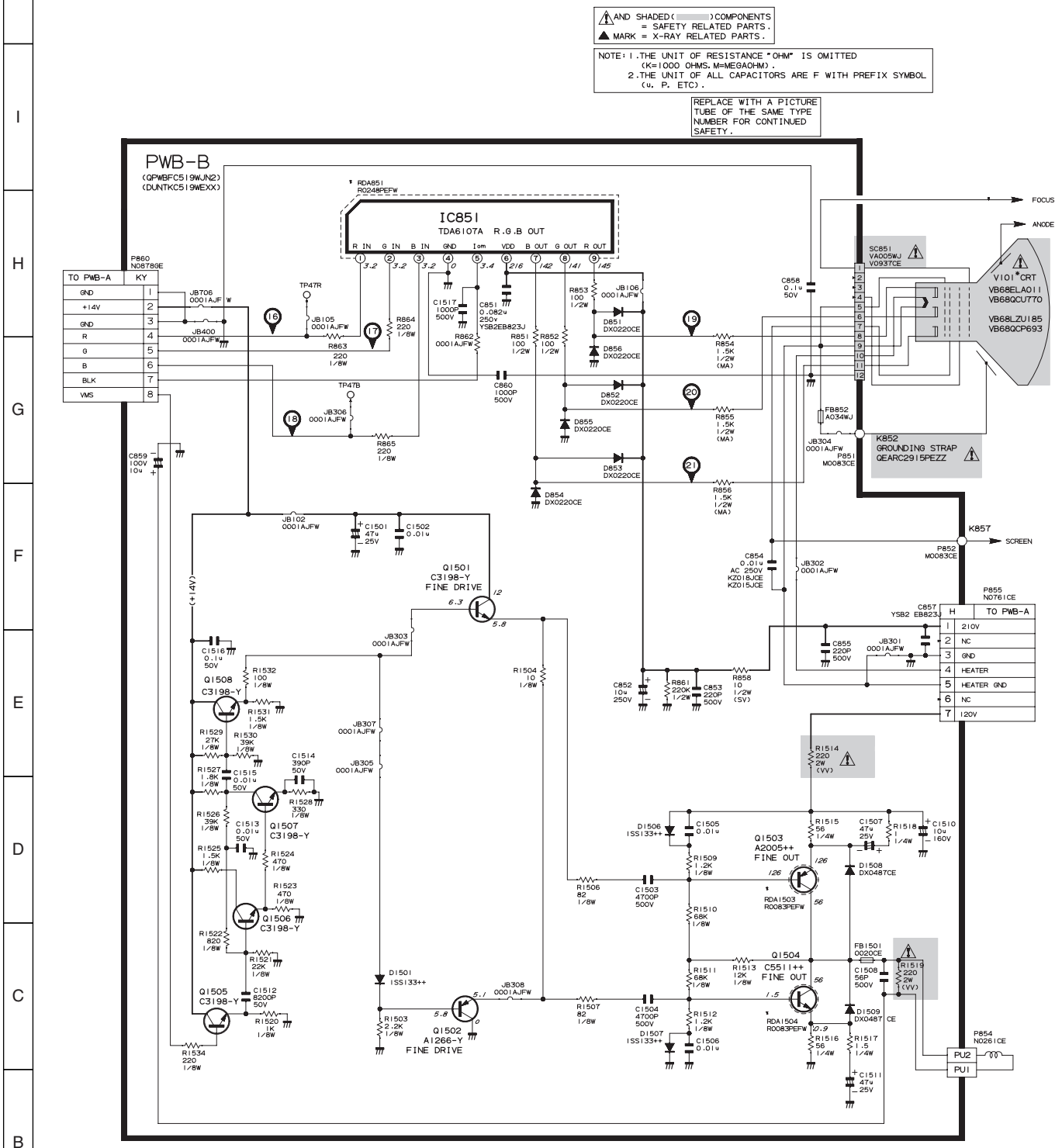
1. *Voltage in parenthesis measured with no Signal.*
2. *Voltages without parenthesis measured with PAL Colour-Signal.*
3. *All the voltages in each point are measured high impedance volt-meter.*

WAVEFORM MEASUREMENT CONDITIONS:

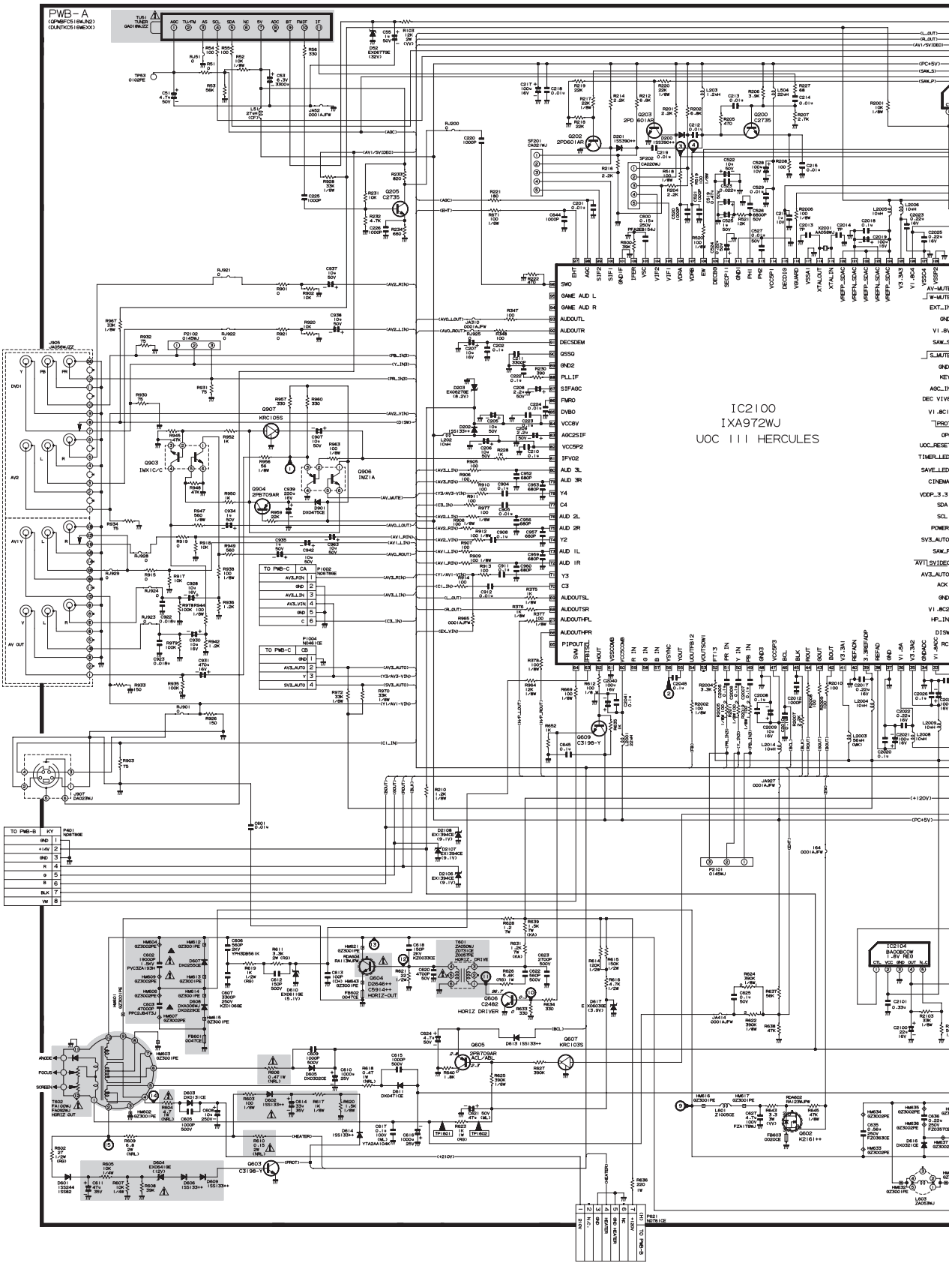
1. *RF colour bar signal of 2.0V peak to peak applied at RF Tuner TU51.*
2. *Approximately 4.0 V AGC bias (without signal).*

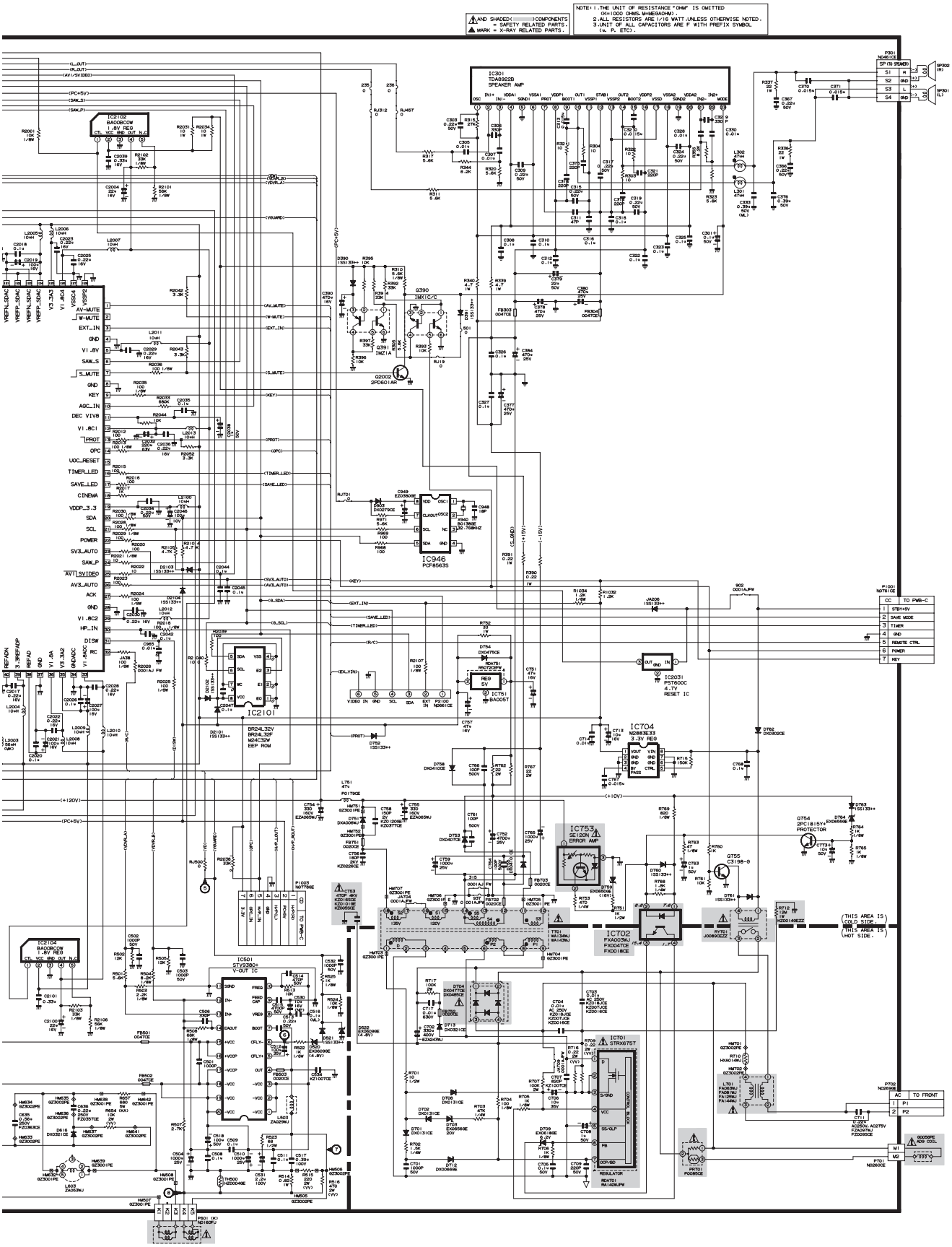
SCHEMATIC DIAGRAM

CRT UNIT



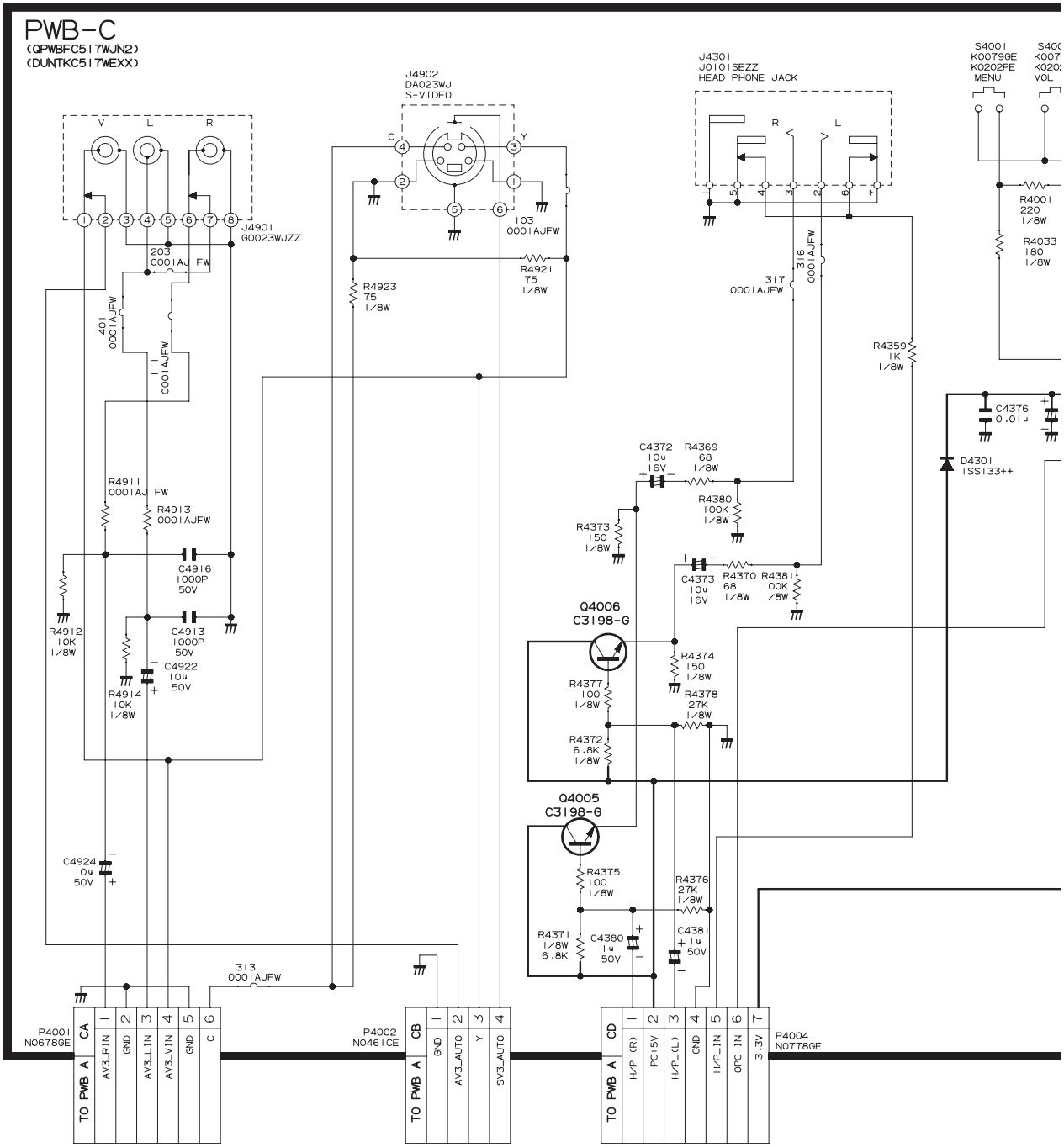
MAIN UNIT

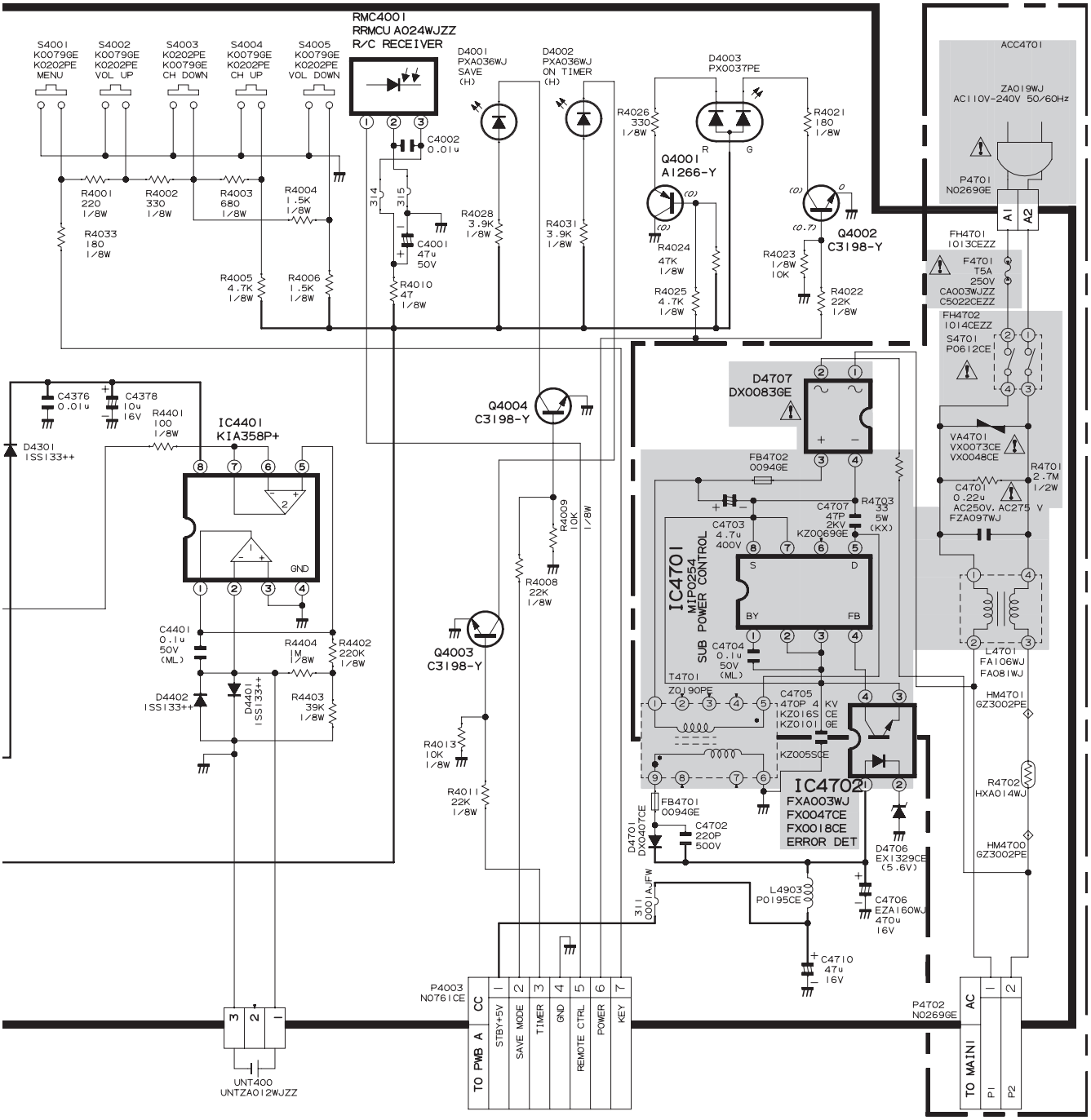

PWB-A
IC2100
IXA972WJ
UOC III HERCULES
HORIZ-OUT
HORIZ DRIVER



10	11	12	13	14	15	16	17	18	19

FRONT UNIT

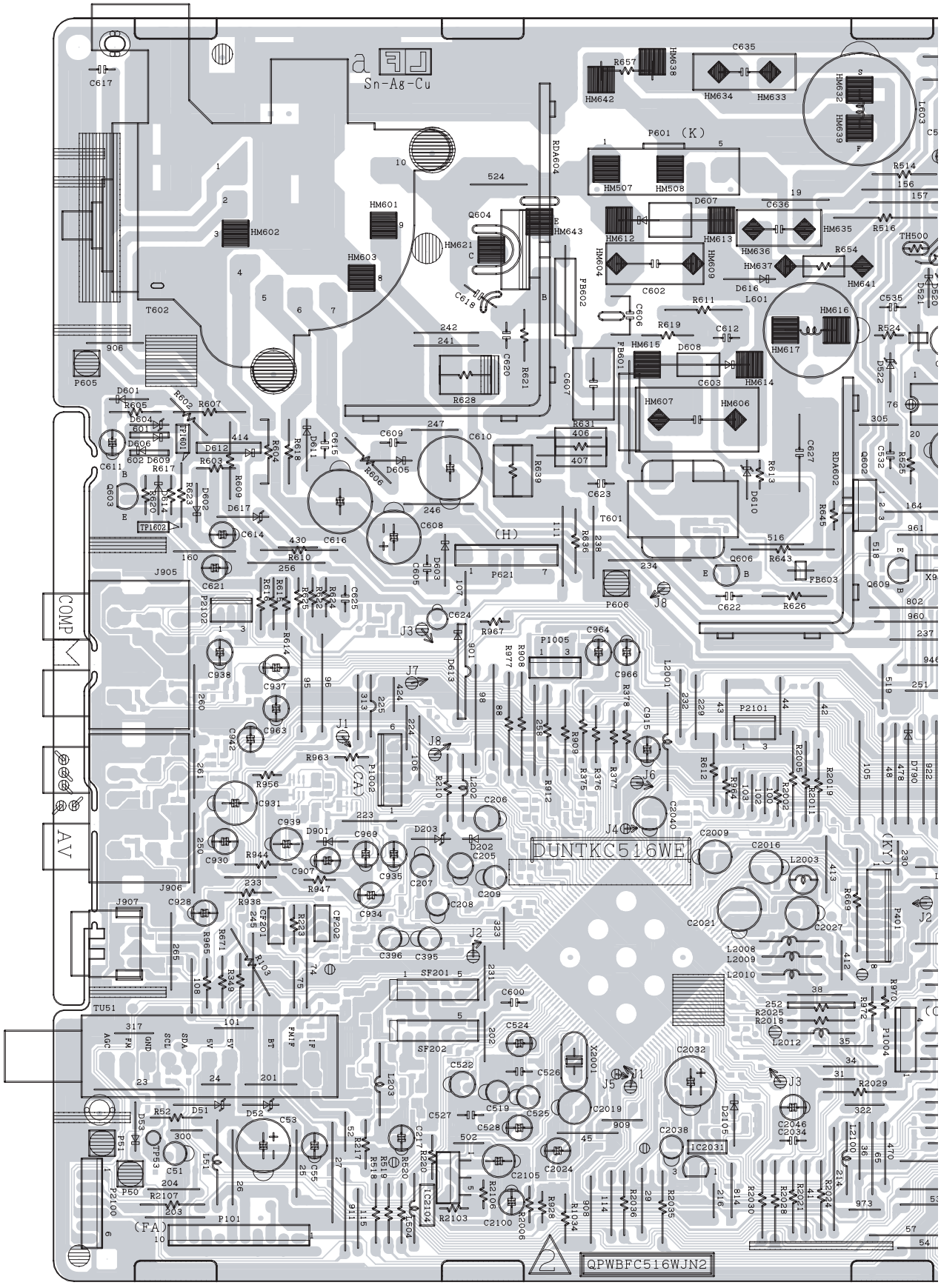

PWB-C
(QPWBFC517WJN2)
(DUNTKC517WEXX)
J4902
DA023WJ
S-VIDEO
J4301
J0101SEZZ
HEAD PHONE JACK
S4001
K0079GE
MENU
J4901
G0023WJZZ
R4923
75
1/8W
R4921
75
1/8W
R4001
220
1/8W
R4033
180
1/8W
R4359
1K
1/8W
C4376
0.01u
D4301
1SS133++
C4372
10u
16V
R4369
68
1/8W
R4380
100K
1/8W
C4373
10u
16V
R4370
68
1/8W
R4381
100K
1/8W
R4373
150
1/8W
Q4006
C3198-G
R4374
150
1/8W
R4377
100
1/8W
R4378
27K
1/8W
R4372
6.8K
1/8W
Q4005
C3198-G
R4375
100
1/8W
R4376
27K
1/8W
R4371
1/8W
6.8K
C4380
1u
50V
C4381
1u
50V
R4911
R4913
C4916
1000P
50V
R4912
10K
1/8W
C4913
1000P
50V
C4922
10u
50V
R4914
10K
1/8W
C4924
10u
50V
P4001
N0678GE
TO PWB A
CA
AV3_RIN
GND
AV3_LIN
AV3_VIN
GND
C
P4002
N0461CE
TO PWB A
CB
GND
AV3_AUTO
Y
SV3_AUTO
P4004
N0778GE
TO PWB A
CD
H/P (R)
PC+5V
H/P_(L)
GND
H/P_IN
OPC-IN
3.3V

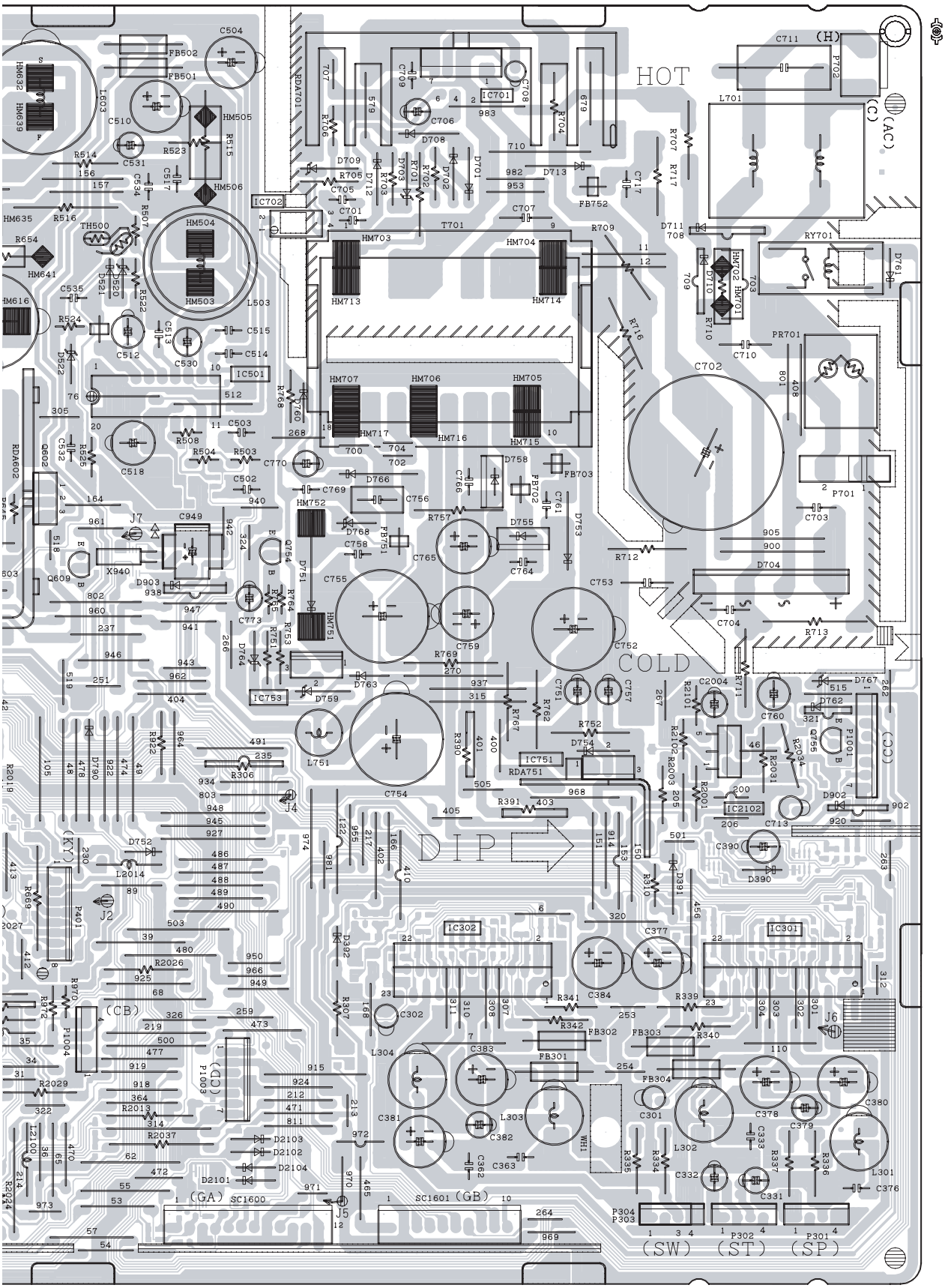


10	11	12	13	14	15	16	17	18	19

PRINTED WIRING BOARD ASSEMBLIES

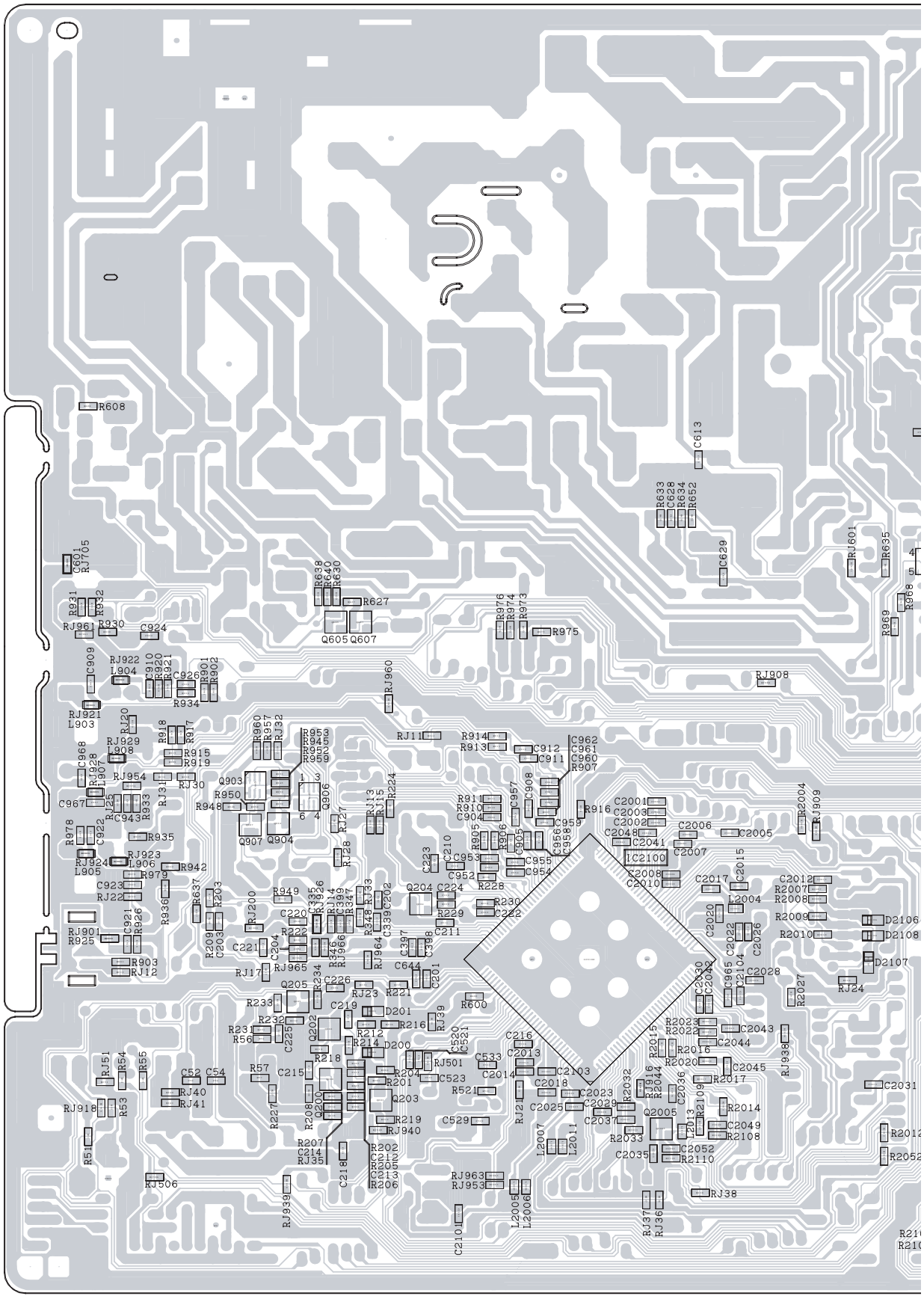
PWB-A: MAIN UNIT (COMPONENT SIDE)

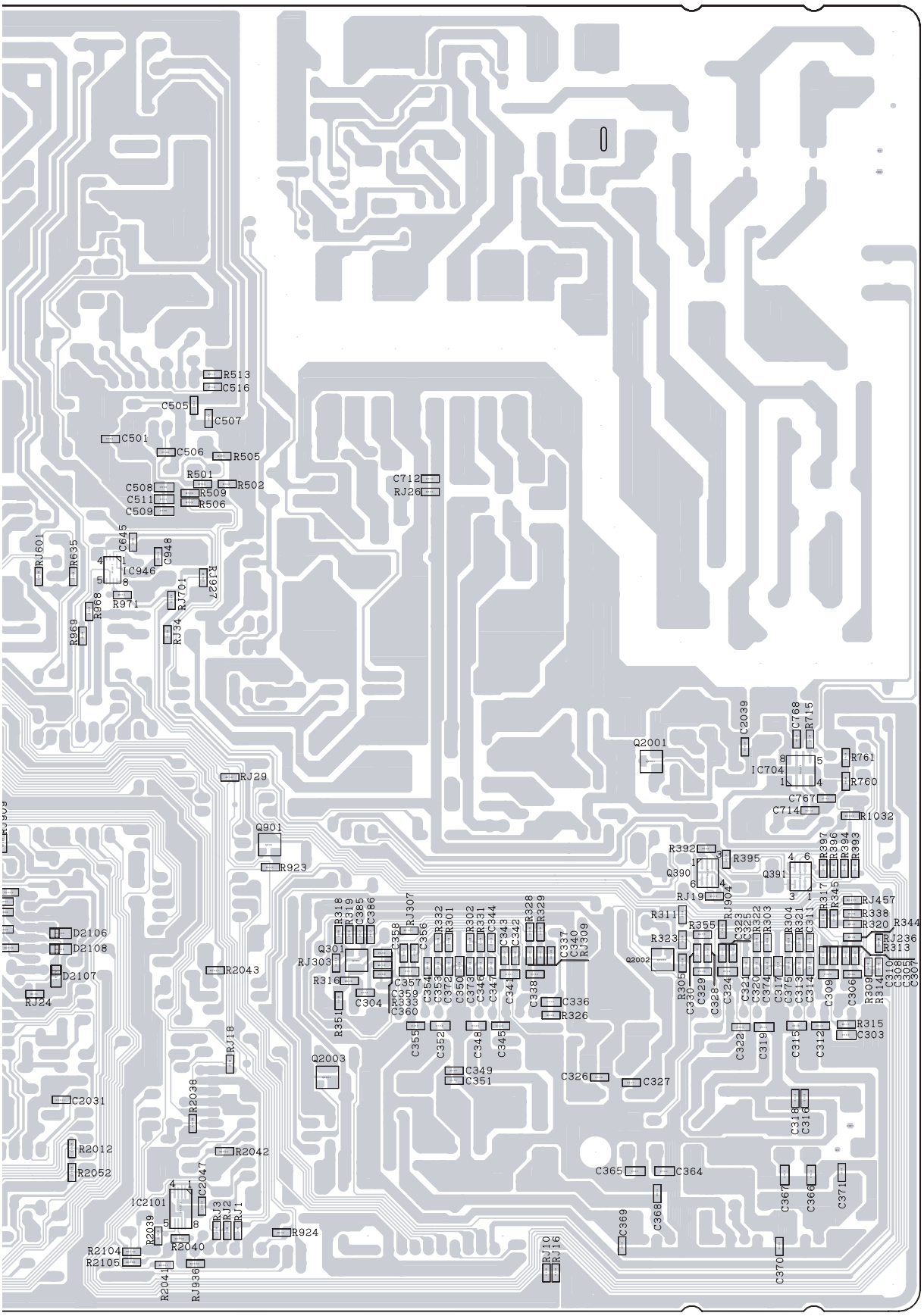




10	11	12	13	14	15	16	17	18	19

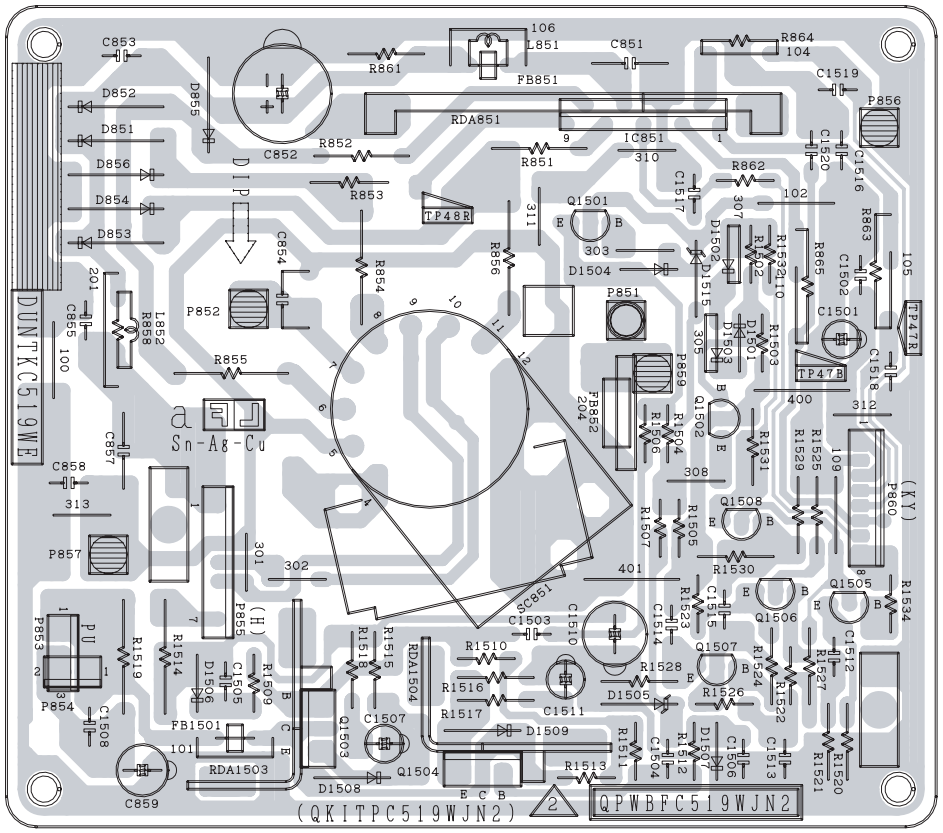
PWB-A: MAIN UNIT (CHIP PARTS SIDE)



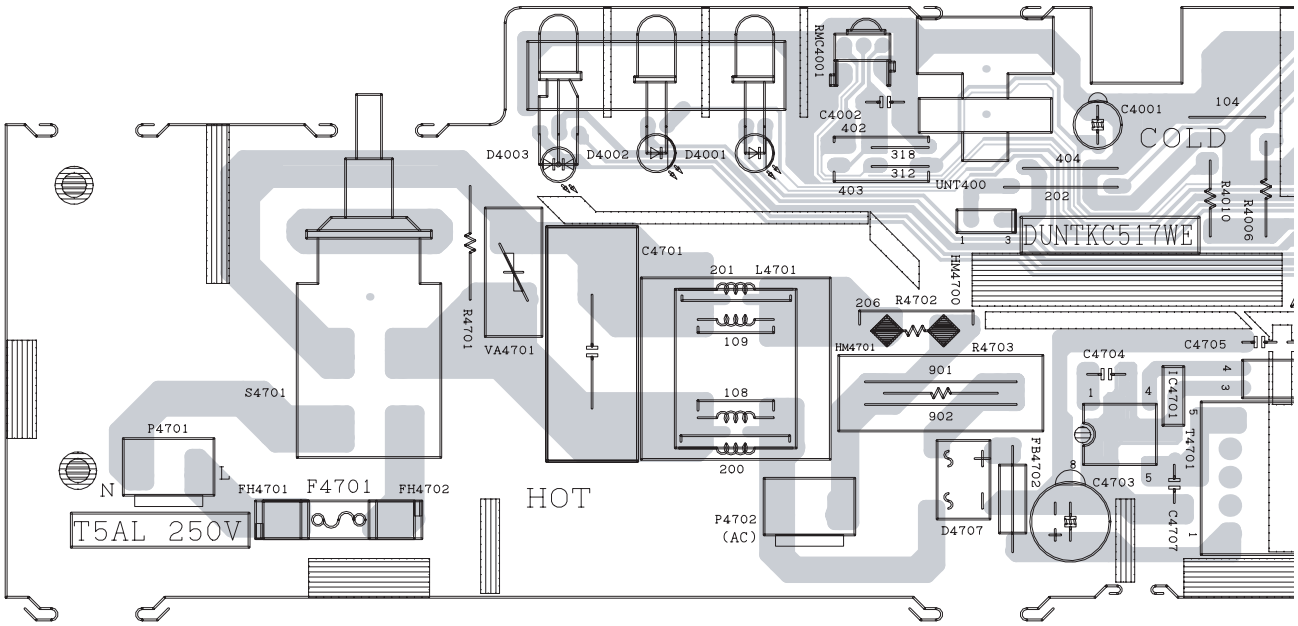


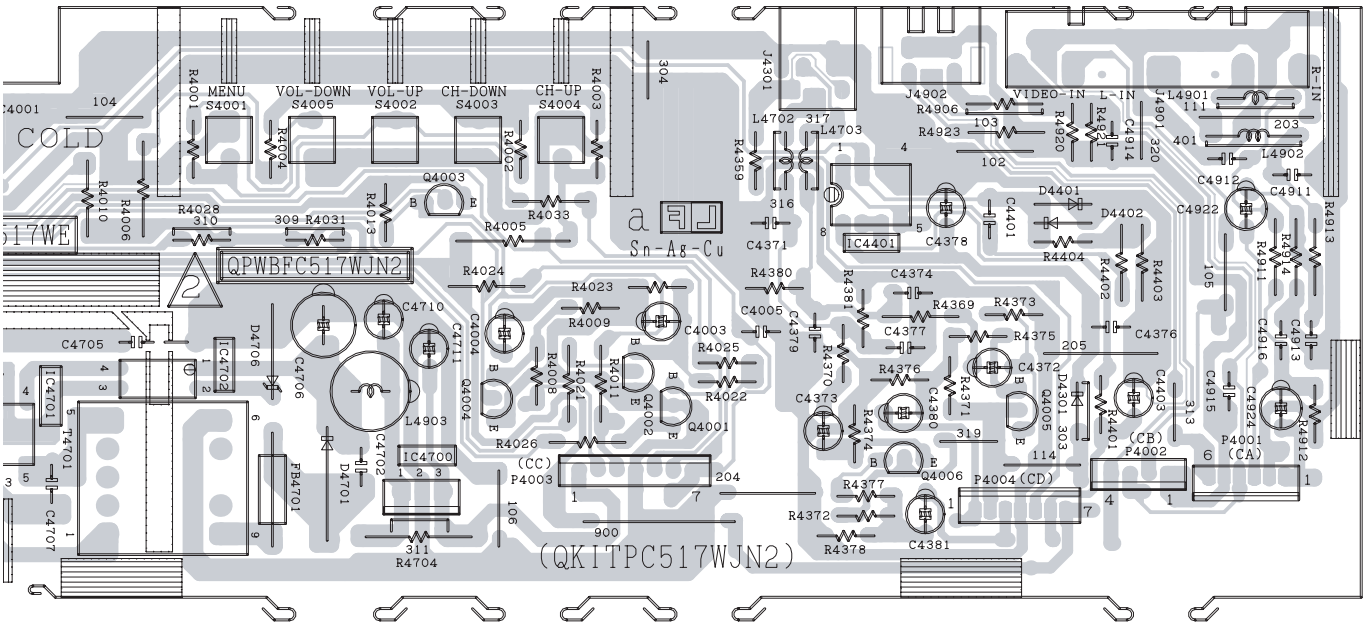
10	11	12	13	14	15	16	17	18	19

PWB-B: CRT UNIT



PWB-C: FRONT UNIT





10	11	12	13	14	15	16	17	18	19

10. REPLACEMENT PARTS LIST
PARTS REPLACEMENT

Replacement parts which have these special safety characteristics are identified in this manual; electrical components having such features are identified by "⚠" in the Replacement Parts Lists.
The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended replacement parts shown in this service manual may create shock, fire or other hazards.

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following informations.

1. **MODEL NUMBER**
2. **REF. NO.**
3. **PART NO.**
4. **DESCRIPTION**
5. **CODE**
4. **QUANTITY**

MARK ★: SPARE PARTS-DELIVERY SECTION

Ref. No.	Part No.	★	Description	Code

PICTURE TUBE

⚠	V101	VB68LZU185XFN	R	Picture Tube		CV
⚠	L703	RCiLG0056PEZZ	R	Degaussing Coil		AS
⚠		QEARC2915PEZZ	R	Grounding Strap		AH
		RCiLHA096WJZZ	R	Deflection Yoke		BF
		PMAGFA009WJZZ	R	Magnet		AK
		PMAGG3002CEZZ	R	Magnet		AC

PRINTED WIRING BOARD ASSEMBLIES
(NOT REPLACEMENT ITEM)

PWB-A	DUNTKC516WEB1	-	Main Unit	—
PWB-B	DUNTKC519WEA1	-	CRT Unit	—
PWB-C	DUNTKC517WEA1	-	Front Unit	—

PWB-A DUNTKC516WEB1
MAIN Unit

TUNER

NOTE: THE PARTSHERE SHOWN ARE SUPPLIED ASAN ASSEMBLY BUT NOT INDEPENDENTLY.

⚠	TU51	RTUNQA018WJZZ	R	VHF Tuner	

INTEGRATED CIRCUITS

	IC301	VHiTDA8922B-1	R	I.C.	
	IC501	VHiSTV9380+3ES	R	STV9380A	AP
⚠	IC701	VHiSTRX6757-1S	R	STR-X6757LF	AS
	IC704	VHiM2883E331EY	R	NJM2883E33	AF
	IC751	VHiBA005T//-1	R	BA05T	AF
⚠	IC753	VHiSE120N//-1	R	SE120N	AG
	IC946	VHiPCF8563S-1Y	R	PCF8563TS/F4	AL
	IC2031	VHiPST600C/-1+	R	PST600C-2	AD
	IC2100	RH-iXA832WJZZQ	R	TDA12063H1/N1D	BF
	IC2101	VHiBR24L32V-1Y	R	BR24L32FV-W	AG
	IC2102	VHiBA00BC0W-1S	R	BA00BC0WT-V5	AG
	IC2104	VHiBA00BC0W-1S	R	BA00BC0WT-V5	AG

TRANSISTORS

	Q200	VS2SC2735//1EY	R	2SC2735	AC
	Q202	VS2PD601AR/-1Y	R	2PD601AR	AB
	Q203	VS2PD601AR/-1Y	R	2PD601AR	AB
	Q205	VS2SC2735//1EY	R	2SC2735	AC
	Q390	VSiMX1C/C//-1Y	R	iMX1C/C	AC
	Q391	VSiMZ1A////-1Y	R	iMZ1A//	AC
	Q602	VS2SK2161++-1	R	2SK2161	AG
	Q603	VS2SC3198-Y-1+	R	2SC3198	AA
	Q604	VS2SD2646++1E	R	2SD2646	AM
	Q605	VS2PB709AR/-1Y	R	2PB709AR	AB
	Q606	VS2SC2482//-1+	R	2SC2482	AD
	Q607	VSKRC103S//-1Y	R	KRC103S	AA
	Q609	VS2SC3198-Y-1+	R	2SC3198	AA
	Q754	VS2PC1815Y+-1+	R	2PC1815Y	AC
	Q755	VS2SC3198-G-1+	R	2SC3198-G	AA
	Q903	VSiMX1C/C//-1Y	R	iMX1C/C	AC
	Q904	VS2PB709AR/-1Y	R	2PB709AR	AB
	Q906	VSiMZ1A////-1Y	R	iMZ1A//	AC
	Q907	VSKRC105S//-1Y	R	KRC105S	AB
	Q2002	VS2PD601AR/-1Y	R	2PD601AR	AB

DIODES

	D52	RH-EX0677GEZZY	R	Zener Diode	AC
	D200	VHD1SS390++-1Y	R	1SS390	AB
	D201	VHD1SS390++-1Y	R	1SS390	AB
	D202	VHD1SS133++-1Y	R	1SS133	AA
	D203	RH-EX0627GEZZY	R	Zener Diode	AA
	D390	VHD1SS133++-1Y	R	1SS133	AA
	D391	VHD1SS133++-1Y	R	1SS133	AA
	D520	RH-EX0609GEZZY	R	Zener Diode	AA
	D521	VHD1SS133++-1Y	R	1SS133	AA
	D522	RH-EX0609GEZZY	R	Zener Diode	AA
	D601	VHD1SS244//-1Y	R	1SS244	AB
⚠	D602	VHD1SS133++-1Y	R	1SS133	AA
	D603	RH-DX0131CEZZY	R	Diode	AC
⚠	D604	RH-EX0641GEZZY	R	Zener Diode	AA
	D605	RH-DX0302CEZZY	R	Diode	AC
⚠	D606	VHD1SS133++-1Y	R	1SS133	AA
⚠	D607	RH-DX0255CEZZ	R	Diode	AC
⚠	D608	RH-DXA006WJZZ	R	Diode	AD
⚠	D609	VHD1SS133++-1Y	R	1SS133	AA
	D610	RH-EX0611GEZZY	R	Zener Diode	AA
	D611	RH-DX0471CEZZY	R	Diode	AE
	D613	VHD1SS133++-1Y	R	1SS133	AA
	D614	VHD1SS133++-1Y	R	1SS133	AA
	D616	RH-DX0321CEZZY	R	Diode	AC
	D617	RH-EX0603GEZZY	R	Zener Diode	AA
	D701	RH-DX0131CEZZY	R	Diode	AC
	D702	RH-DX0131CEZZY	R	Diode	AC
	D703	RH-EX0656GEZZY	R	Zener Diode	AB
⚠	D704	RH-DX0477CEZZ	R	Diode	AF
	D708	RH-DX0131CEZZY	R	Diode	AC
	D709	RH-EX0618GEZZY	R	Zener Diode	AB
	D712	RH-DX0066GEZZY	R	Diode	AC
	D713	RH-DX0321CEZZY	R	Diode	AC
	D751	RH-DXA006WJZZ	R	Diode	AD
	D752	VHD1SS133++-1Y	R	1SS133	AA
	D753	RH-DX0407CEZZY	R	Diode	AD
	D754	RH-DX0475CEZZ	R	Diode	AB
	D755	RH-DX0410CEZZ	R	Diode	AG
	D758	RH-DX0410CEZZ	R	Diode	AG
	D759	RH-EX0650GEZZY	R	Zener Diode	AB
	D760	VHD1SS133++-1Y	R	1SS133	AA
	D761	VHD1SS133++-1Y	R	1SS133	AA
	D762	VHD1SS133++-1Y	R	1SS133	AA
	D763	VHD1SS133++-1Y	R	1SS133	AA
	D764	RH-EX0655GEZZY	R	Zener Diode	AB
	D901	RH-DX0475CEZZY	R	Diode	AB
	D903	RH-DX0279CEZZY	R	Diode	AB
	D2101	VHD1SS133++-1Y	R	1SS133	AA
	D2102	VHD1SS133++-1Y	R	1SS133	AA
	D2103	VHD1SS133++-1Y	R	1SS133	AA
	D2104	VHD1SS133++-1Y	R	1SS133	AA
	D2106	RH-EX1394CEZZY	R	Zener Diode	AB
	D2107	RH-EX1394CEZZY	R	Zener Diode	AB
	D2108	RH-EX1394CEZZY	R	Zener Diode	AB
	JA206	VHD1SS133++-1Y	R	1SS133	AA
⚠	IC702	RH-FXA003WJZZ	R	PC123Y82	AD

Ref. No.	Part No.	★	Description	Code
R710	RH-HXA014WJZZ+	R	Thermistor	AD
TH500	RH-HZ0004GEZZ+	R	Thermistor	AE
	CRYSTALS			
⚠ PR701	RMPTP0085CEZZ	R	Packaged Circuit	AL
X940	RCRSB0138GEZZ	R	Crystal	AD
X2001	RCRSAA058WJZZ	R	Crystal	AD
	FILTERS			
SF201	RFiLCA021WJZZ	R	Filter	AK
SF202	RFiLCA020WJZZ	R	Filter	AM
	COILS AND TRANSFORMERS			
L51	VP-CF270K0000Y	R	Peaking, 27μH	AB
L202	VP-DF100K0000Y	R	Peaking, 10μH	AB
L203	VP-XF1R2K0000Y	R	Peaking, 1.2μH	AB
L301	RCiLPA229WJZZ	R	Coil	AF
L302	RCiLPA229WJZZ	R	Coil	AF
L503	RCiLZA029WJZZ	R	Coil	AM
L504	VP-XF220K0000Y	R	Peaking, 22μH	AB
L601	RCiLZ1005CEZZ	R	Coil	AH
L603	RCiLZA053WJZZ	R	Coil	AG
⚠ L701	RCiLFA125WJZZ	R	Coil	AK
L751	RCiLP0179CEZZ+	R	Coil	AD
L2001	VP-XF220K0000Y	R	Peaking, 22μH	AB
L2003	VP-MK560K0000+	R	Peaking, 56μH	AB
L2004	VPCEM100MR70NYR		Peaking, 10μH	AC
L2005	VPCEM100MR70NYR		Peaking, 10μH	AC
L2006	VPCEM100MR70NYR		Peaking, 10μH	AC
L2007	VPCEM100MR70NYR		Peaking, 10μH	AC
L2008	VP-DF100K0000Y	R	Peaking, 10μH	AB
L2009	VP-DF100K0000Y	R	Peaking, 10μH	AB
L2010	VP-DF100K0000Y	R	Peaking, 10μH	AB
L2011	VPCEM100MR70NYR		Peaking, 10μH	AC
L2012	VP-DF100K0000Y	R	Peaking, 10μH	AB
L2013	VPCEM100MR70NYR		Peaking, 10μH	AC
L2014	VP-DF100K0000Y	R	Peaking, 10μH	AB
L2100	VP-DF100K0000Y	R	Peaking, 10μH	AB
⚠ T601	RTRNZA050WJZZ	R	Transformer	AF
⚠ T602	RTRNFA100WJZZ	R	H-Volt Transformer	AX
⚠ T701	RTRNWA134WJZZ	R	Transformer	AR
	CAPACITORS			
C51	VCEA9M1HW475M+R		4.7 50V Electrolytic	AB
C53	VCEA0A0JW338M	R	3300 6.3V Electrolytic	AD
C55	VCEA0A1HW105M+R		1 50V Electrolytic	AB
C201	VCKYCY1HB103KY	R	0.01 50V Ceramic	AA
C202	VCKYCY1HB104KY	R	0.1 50V Ceramic	AA
C205	VCEA9M1HW106M+R		10 50V Electrolytic	AB
C206	VCEA9M1HW106M+R		10 50V Electrolytic	AB
C207	VCEA9M1CW106M+R		10 16V Electrolytic	AB
C208	VCEA9M1HW225M+R		2.2 50V Electrolytic	AB
C209	VCEA9M1HW225M+R		2.2 50V Electrolytic	AB
C210	VCKYCY1HB104KY	R	0.1 50V Ceramic	AA
C211	VCKYCY1HB332KY	R	3300P 50V Ceramic	AA
C212	VCKYCY1HB103KY	R	0.01 50V Ceramic	AA
C213	VCKYCY1HB103KY	R	0.01 50V Ceramic	AA
C214	VCKYCY1HB103KY	R	0.01 50V Ceramic	AA
C215	VCKYCY1HB103KY	R	0.01 50V Ceramic	AA
C216	VCKYCY1AB105KY	R	1 10V Ceramic	AB
C217	VCEA0A1CW107M+R		100 16V Electrolytic	AC
C218	VCKYCY1HB103KY	R	0.01 50V Ceramic	AA
C219	VCKYCY1HB103KY	R	0.01 50V Ceramic	AA
C220	VCCCCY1HH102JY	R	1000P 50V Ceramic	AB
C222	VCKYCY1HB104KY	R	0.1 50V Ceramic	AA
C223	VCKYCY1HB104KY	R	0.1 50V Ceramic	AA
C224	VCKYCY1HB103KY	R	0.01 50V Ceramic	AA
C225	VCCCCY1HH102JY	R	1000P 50V Ceramic	AB
C226	VCCCCY1HH102J	R	1000P 50V Ceramic	AB
C301	VCEA9M1CW476M+R		47 16V Electrolytic	AB
C303	VCKYTV1HF224ZY	R	0.22 50V Ceramic	AC
C305	VCKYCY1HB103KY	R	0.01 50V Ceramic	AA
C306	VCKYCY1HB331KY	R	330P 50V Ceramic	AA
C307	VCKYCY1HB103KY	R	0.01 50V Ceramic	AA

Ref. No.	Part No.	★	Description	Code
C308	VCKYCY1HB104KY	R	0.1 50V Ceramic	AA
C309	VCKYTV1HF224ZY	R	0.22 50V Ceramic	AC
C310	VCKYCY1HB104KY	R	0.1 50V Ceramic	AA
C311	VCCCCY1HH470JY	R	47P 50V Ceramic	AA
C312	VCKYCY1HB104KY	R	0.1 50V Ceramic	AA
C313	VCKYCY1HB153KY	R	0.015 50V Ceramic	AA
C314	VCKYCY1HB221KY	R	220P 50V Ceramic	AA
C315	VCKYTV1HF224ZY	R	0.22 50V Ceramic	AC
C316	VCKYCY1HB104KY	R	0.1 50V Ceramic	AA
C317	VCKYTV1HF224ZY	R	0.22 50V Ceramic	AC
C318	VCKYCY1HB104KY	R	0.1 50V Ceramic	AA
C319	VCKYTV1HF224ZY	R	0.22 50V Ceramic	AC
C320	VCKYCY1HB153KY	R	0.015 50V Ceramic	AA
C321	VCKYCY1HB221KY	R	220P 50V Ceramic	AA
C322	VCKYCY1HB104KY	R	0.1 50V Ceramic	AA
C323	VCKYCY1HB104KY	R	0.1 50V Ceramic	AA
C324	VCKYTV1HF224ZY	R	0.22 50V Ceramic	AC
C325	VCKYCY1HB104KY	R	0.1 50V Ceramic	AA
C326	VCKYCY1HB104KY	R	0.1 50V Ceramic	AA
C327	VCKYCY1HB104KY	R	0.1 50V Ceramic	AA
C328	VCKYCY1HB103KY	R	0.01 50V Ceramic	AA
C329	VCKYCY1HB331KY	R	330P 50V Ceramic	AA
C330	VCKYCY1HB103KY	R	0.01 50V Ceramic	AA
C333	VCFYFA1HA394J+	R	0.39 50V Mylar	AC
C366	VCKYTV1HF224ZY	R	0.22 50V Ceramic	AC
C367	VCKYTV1HF224ZY	R	0.22 50V Ceramic	AC
C370	VCKYCY1HB153KY	R	0.015 50V Ceramic	AA
C371	VCKYCY1HB153KY	R	0.015 50V Ceramic	AA
C374	VCKYCY1HB221KY	R	220P 50V Ceramic	AA
C375	VCKYCY1HB221KY	R	220P 50V Ceramic	AA
C376	VCFYFA1HA394J+	R	0.39 50V Mylar	AC
C377	VCEA0A1EW477M+R		470 25V Electrolytic	AD
C378	VCEA0A1EW477M+R		470 25V Electrolytic	AD
C379	VCEA0A1HW226M+R		22 50V Electrolytic	AB
C380	VCEA0A1EW477M+R		470 25V Electrolytic	AD
C384	VCEA0A1EW477M+R		470 25V Electrolytic	AD
C390	VCEA0A1CW477M+R		470 16V Electrolytic	AC
C501	VCKYCY1HB102KY	R	1000P 50V Ceramic	AA
C502	VCKYPA1HB102K+	R	1000P 50V Ceramic	AA
C503	VCKYPA1HB102K+	R	1000P 50V Ceramic	AA
C504	VCEA0A1EW108M	R	1000 25V Electrolytic	AD
C506	VCKYCY1HB331KY	R	330P 50V Ceramic	AA
C508	VCKYTV1HF104ZY	R	0.1 50V Ceramic	AB
C509	VCKYTV1HF104ZY	R	0.1 50V Ceramic	AB
C510	VCEA0A1EW108M	R	1000 25V Electrolytic	AD
C511	VCKYTV1HF104ZY	R	0.1 50V Ceramic	AB
C512	VCEA0A1VW107M+R		100 35V Electrolytic	AC
C513	VCFYFA1HA224J+	R	0.22 50V Mylar	AB
C514	VCKYPA1HB471K+	R	470P 50V Ceramic	AA
C515	VCKYPA1HB472K+	R	4700P 50V Ceramic	AB
C516	VCKYCY1HB104KY	R	0.1 50V Ceramic	AA
C517	RC-FZ0272CEZZ+	R	0.39P 100V M.Polypro	AD
C518	VCEA0A1HW107M+R		100 50V Electrolytic	AB
C519	VCEA9M1HW474M+R		0.47 50V Electrolytic	AB
C520	VCCCCY1HH102JY	R	1000P 50V Ceramic	AB
C521	VCCCCY1HH102JY	R	1000P 50V Ceramic	AB
C522	VCEA9M1HW106M+R		10 50V Electrolytic	AB
C523	VCKYCY1HB223KY	R	0.022 50V Ceramic	AA
C524	VCEA0A1HW224M+R		0.22 50V Electrolytic	AB
C525	VCEA9M1HW105M+R		1 50V Electrolytic	AB
C526	VCQYTA1HM682K+R		6800P 50V Mylar	AA
C527	VCQYTA1HM103J+	R	0.01 50V Mylar	AB
C528	VCEA0A1AW107M+R		100 10V Electrolytic	AB
C529	VCKYCY1HB103KY	R	0.01 50V Ceramic	AA
C530	VCE9GA1CW106M+R		10 16V Elect, (N.P)	AB
C531	VCEA0A2AW225M+R		2.2 100V Electrolytic	AB
C532	VCKYPA1HB102K+	R	1000P 50V Ceramic	AA
C534	RC-KZ1007CEZZ	R	Ceramic	AC
C600	VCFPFA2EB154J	R	0.15 250V M.Polypro	AC
C601	VCKYCY1HB103KY	R	0.01 50V Ceramic	AA
⚠ C602	VCFPVC3ZA223H	R	0.022 1.8kV M.Polypro	
⚠ C603	VCQPPC2JB473J	R	0.047 630V Mylar	AC
C605	VCKYPA2HB102K+	R	1000P 500V Ceramic	AA
C606	VCKYPH3DB561K	R	560P 2kV Ceramic	AC
⚠ C607	RC-KZ0106GEZZ	R	3300P 250V Ceramic	AG

Ref. No.	Part No.	★			Description	Code
C608	VCEA4A2EN106M+	R	10	250V	Electrolytic	AD
C609	VCKYPA2HB102K+	R	1000P	500V	Ceramic	AA
C610	VCEA0A1EW108M	R	1000	25V	Electrolytic	AD
⚠ C611	VCEA0A1VW476M+	R	47	35V	Electrolytic	AB
C612	VCKYPA2HB151K+	R	150P	500V	Ceramic	AB
C613	VCCCCY1HH101JY	R	100P	50V	Ceramic	AA
⚠ C614	VCEA0A1VW336M+	R	33	35V	Electrolytic	AA
C615	VCKYPA2HB102K+	R	1000P	500V	Ceramic	AA
C616	VCEA0A1EW108M	R	1000	25V	Electrolytic	AD
C617	VCQYTA2AA104K+	R	0.1	100V	Mylar	AB
C618	RC-KZ0033CEZZ	R	150P	2kV	Ceramic	AB
C620	VCKYPA1HB472K+	R	4700P	50V	Ceramic	AB
C621	VCEA0A1HW476M+	R	47	50V	Electrolytic	AB
C622	VCKYPA2HB561K+	R	560P	500V	Ceramic	AA
C623	VCKYPA2HB272K+	R	2700P	500V	Ceramic	AB
C624	VCEA9M1HW475M+	R	4.7	50V	Electrolytic	AB
C625	VCKYPA1HB104K+	R	0.1	50V	Ceramic	
C627	RC-FZA178WJZZ	R	4.7	100V	M.Polypro	AG
C635	RC-FZ0363CEZZ	R	0.56	250V	M.Polypro	AF
C636	RC-FZ0357CEZZ	R	0.22	250V	M.Polypro	AE
C644	VCCCCY1HH102JY	R	1000P	50V	Ceramic	AB
C645	VCKYCY1HB104KY	R	0.1	50V	Ceramic	AA
C701	VCKYPA1HB102K+	R	1000P	50V	Ceramic	AA
C702	RC-EZA243WJZZ	R	330	400V	Electrolytic	AS
C703	RC-KZ018JCEZZ	R	0.01	250V	Ceramic	AC
⚠ C704	RC-KZ018JCEZZ	R	0.01	250V	Ceramic	AC
C705	VCFYFA1HA104J+	R	0.1	50V	Mylar	AA
C706	VCEA0A1VW106M+	R	10	35V	Electrolytic	AB
C707	RC-KZ1007CEZZ	R	820P		Ceramic	AC
C708	VCEA9M1HW105M+	R	1	50V	Electrolytic	AB
C709	VCKYPA1HB221K+	R	220P	50V	Ceramic	AA
C711	RC-FZA097WJZZ	R	820P		Mylar	AC
C713	VCEA9M1CW106M+	R	10	16V	Electrolytic	AB
C714	VCKYCY1HB103KY	R	0.01	50V	Ceramic	AA
C717	VCFYAA2JA103K+	R	0.01	630V	Mylar	AC
C751	VCEA0A1CW476M+	R	47	16V	Electrolytic	AB
C752	VCEA0A1EW478M	R	4700	25V	Electrolytic	AG
⚠ C753	RC-KZ022SCEZZ	R	470P	4kV	Ceramic	AD
C754	RC-EZA065WJZZ	R	330	160V	Ceramic	AK
C755	RC-EZA065WJZZ	R	330	160V	Ceramic	AK
C756	RC-KZ0226CEZZ+	R	180P	2kV	Ceramic	AC
C757	VCEA0A1CW476M+	R	47	16V	Electrolytic	AB
C758	RC-KZ0120GEZZ	R	150P	2kV	Ceramic	AC
C759	VCEA0A1EW108M	R	1000	25V	Electrolytic	AD
C761	VCKYPA2HB101K+	R	100P	500V	Ceramic	AB
C763	VCEA0A1HW105M+	R	1	50V	Electrolytic	AB
C764	VCKYPA2HB101K+	R	100P	500V	Ceramic	AB
C765	VCEA0A1EW108M	R	1000	25V	Electrolytic	AD
C766	VCKYPA2HB101K+	R	100P	500V	Ceramic	AB
C767	VCKYCY1HB153KY	R	0.015	50V	Ceramic	AA
C768	VCKYCY1HB104KY	R	0.1	50V	Ceramic	AA
C773	VCEA0A1HW106M+	R	10	50V	Electrolytic	AB
C904	VCKYCY1HB104K	R	0.1	50V	Ceramic	AA
C905	VCKYCY1HB103KY	R	0.01	50V	Ceramic	AA
C907	VCEA0A1HW106M+	R	10	50V	Electrolytic	AB
C908	VCKYYCY1HB104KYR		0.1	50V	Ceramic	AA
C911	VCKYYCY1HB104KYR		0.1	50V	Ceramic	AA
C912	VCKYYCY1HB103KYR		0.01	50V	Ceramic	AA
C922	VCKYYCY1HB183KYR		0.018	50V	Ceramic	AA
C923	VCKYYCY1HB183KYR		0.018	50V	Ceramic	AA
C928	VCEA0A1CW106M+	R	10	16V	Electrolytic	AB
C930	VCEA0A1CW106M+	R	10	16V	Electrolytic	AB
C931	VCEA0A1CW477M+	R	470	16V	Electrolytic	AC
C934	VCEA0A1HW105M+	R	1	50V	Electrolytic	AB
C935	VCEA0A1HW105M+	R	1	50V	Electrolytic	AB
C937	VCEA0A1HW106M+	R	10	50V	Electrolytic	AB
C938	VCEA0A1HW106M+	R	10	50V	Electrolytic	AB
C939	VCEA0A1CW227M+	R	220	16V	Electrolytic	AC
C942	VCEA0A1HW106M+	R	10	50V	Electrolytic	AB
C948	VCCCCY1HH180JY	R	18P	50V	Ceramic	AA
C949	RC-EZ0380GEZZ	R			Capacitor	AM
C952	VCCCCY1HH681JY	R	680P	50V	Ceramic	AB
C953	VCCCCY1HH681JY	R	680P	50V	Ceramic	AB
C956	VCCCCY1HH681JY	R	680P	50V	Ceramic	AB
C957	VCCCCY1HH681JY	R	680P	50V	Ceramic	AB

Ref. No.	Part No.	★			Description	Code
C959	VCCCCY1HH681JY	R	680P	50V	Ceramic	AB
C960	VCCCCY1HH681JY	R	680P	50V	Ceramic	AB
C963	VCEA0A1HW106M+	R	10	50V	Electrolytic	AB
C965	VCKYCY1HB103KY	R	0.01	50V	Ceramic	AA
C2004	VCEA0A1CW226M+	R	22	16V	Electrolytic	AB
C2005	VCKYYCY1HB104KYR		0.1	50V	Ceramic	AA
C2006	VCKYYCY1HB104KYR		0.1	50V	Ceramic	AA
C2007	VCKYYCY1HB104KYR		0.1	50V	Ceramic	AA
C2008	VCKYYCY1HB104KYR		0.1	50V	Ceramic	AA
C2009	VCEA9M1CW106M+	R	10	16V	Electrolytic	AB
C2010	VCKYCY1HB104KY	R	0.1	50V	Ceramic	AA
C2012	VCKYCY1HB102KY	R	1000P	50V	Ceramic	AA
C2013	VCCCCY1HH7R0DY	R	7P	50V	Ceramic	AA
C2014	VCCCCY1HH7R0DY	R	7P	50V	Ceramic	AA
C2017	VCKYCY1CF224ZY	R	0.22	16V	Ceramic	AB
C2018	VCKYCY1HB104KY	R	0.1	50V	Ceramic	AA
C2019	VCEA9M1CW107M+	R	100	16V	Electrolytic	AB
C2020	VCKYCY1HB104KY	R	0.1	50V	Ceramic	AA
C2021	VCEA9M1CW107M+	R	100	16V	Electrolytic	AB
C2022	VCKYCY1CF224ZY	R	0.22	16V	Ceramic	AB
C2023	VCKYCY1CF224ZY	R	0.22	16V	Ceramic	AB
C2025	VCKYCY1CF224ZY	R	0.22	16V	Ceramic	AB
C2026	VCKYCY1HB104KY	R	0.1	50V	Ceramic	AA
C2027	VCEA9M1CW107M+	R	100	16V	Electrolytic	AB
C2028	VCKYCY1CF224ZY	R	0.22	16V	Ceramic	AB
C2029	VCKYCY1CF224ZY	R	0.22	16V	Ceramic	AB
C2030	VCKYCY1CF224ZY	R	0.22	16V	Ceramic	AB
C2032	VCEA0A1JW227M+	R	220	63V	Electrolytic	AC
C2034	VCFYFA1HA224J+	R	0.22	50V	Mylar	AB
C2035	VCKYCY1HB104KY	R	0.1	50V	Ceramic	AA
C2036	VCKYCY1CF224ZY	R	0.22	16V	Ceramic	AB
C2038	VCEA9M1HW105M	R	1	50V	Electrolytic	AB
C2039	VCKYCY1CF334ZY	R	0.33	16V	Ceramic	AB
C2040	VCEA9M1CW107M+	R	100	16V	Electrolytic	AB
C2041	VCKYYCY1HB104KYR		0.1	50V	Ceramic	AA
C2042	VCKYYCY1HB104KYR		0.1	50V	Ceramic	AA
C2044	VCKYYCY1HB104KYR		0.1	50V	Ceramic	AA
C2045	VCKYYCY1HB104KYR		0.1	50V	Ceramic	AA
C2046	VCEA0A1AW107M+	R	100	10V	Electrolytic	AB
C2047	VCKYYCY1HB104KYR		0.1	50V	Ceramic	AA
C2048	VCKYYCY1HB104KYR		0.1	50V	Ceramic	AA
C2100	VCEA0A1CW226M+	R	22	16V	Electrolytic	AB
C2101	VCKYCY1AB334KY	R	0.33	10V	Ceramic	AB

RESISTORS

JA38	VRD-RA2BE101JY	R	100	1/8W	Carbon	AA
RJ10	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ11	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ12	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ15	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ16	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ18	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ19	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ20	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ21	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ22	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ23	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ24	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ25	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ27	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ32	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ33	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ36	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ37	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ38	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ40	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ41	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ51	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ200	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ236	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ307	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ457	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ501	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ506	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ701	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA

Ref. No.	Part No.	★		Description	Code
RJ901	VRS-CY1JF000JY	R	0	1/16W Metal Oxide	AA
RJ904	VRS-CY1JF000JY	R	0	1/16W Metal Oxide	AA
RJ909	VRS-CY1JF000JY	R	0	1/16W Metal Oxide	AA
RJ921	VRS-CY1JF000JY	R	0	1/16W Metal Oxide	AA
RJ922	VRS-CY1JF000JY	R	0	1/16W Metal Oxide	AA
RJ923	VRS-CY1JF000JY	R	0	1/16W Metal Oxide	AA
RJ924	VRS-CY1JF000JY	R	0	1/16W Metal Oxide	AA
RJ926	VRS-CY1JF000JY	R	0	1/16W Metal Oxide	AA
RJ927	VRS-CY1JF000JY	R	0	1/16W Metal Oxide	AA
RJ928	VRS-CY1JF000JY	R	0	1/16W Metal Oxide	AA
RJ929	VRS-CY1JF000JY	R	0	1/16W Metal Oxide	AA
RJ938	VRS-CY1JF000JY	R	0	1/16W Metal Oxide	AA
RJ939	VRS-CY1JF000JY	R	0	1/16W Metal Oxide	AA
RJ940	VRS-CY1JF000JY	R	0	1/16W Metal Oxide	AA
RJ960	VRS-CY1JF000JY	R	0	1/16W Metal Oxide	AA
RJ961	VRS-CY1JF000JY	R	0	1/16W Metal Oxide	AA
RJ963	VRS-CY1JF000JY	R	0	1/16W Metal Oxide	AA
R51	VRS-CY1JF000JY	R	0	1/16W Metal Oxide	AA
R52	VRD-RA2BE103JY	R	10K	1/8W Carbon	AA
R53	VRS-CY1JF563JY	R	56K	1/16W Metal Oxide	AA
R54	VRS-CY1JF101JY	R	100	1/16W Metal Oxide	AA
R55	VRS-CY1JF101JY	R	100	1/16W Metal Oxide	AA
R56	VRS-CY1JF331JY	R	330	1/16W Metal Oxide	AA
R103	VRS-VV3DB123J	R	12K	2W Metal Oxide	AA
R201	VRS-CY1JF222JY	R	2.2K	1/16W Metal Oxide	AA
R202	VRS-CY1JF682JY	R	6.8K	1/16W Metal Oxide	AA
R204	VRS-CY1JF222JY	R	2.2K	1/16W Metal Oxide	AA
R205	VRS-CY1JF471JY	R	470	1/16W Metal Oxide	AA
R206	VRS-CY1JF392JY	R	3.9K	1/16W Metal Oxide	AA
R207	VRS-CY1JF272JY	R	2.7K	1/16W Metal Oxide	AA
R208	VRS-CY1JF101JY	R	100	1/16W Metal Oxide	AA
R210	VRD-RA2BE122JY	R	1.2K	1/8W Carbon	AA
R212	VRS-CY1JF682JY	R	6.8K	1/16W Metal Oxide	AA
R214	VRS-CY1JF222JY	R	2.2K	1/16W Metal Oxide	AA
R216	VRS-CY1JF222JY	R	2.2K	1/16W Metal Oxide	AA
R217	VRD-RA2BE223JY	R	22K	1/8W Carbon	AA
R218	VRS-CY1JF223JY	R	22K	1/16W Metal Oxide	AA
R219	VRS-CY1JF223JY	R	22K	1/16W Metal Oxide	AA
R220	VRD-RA2BE223JY	R	22K	1/8W Carbon	AA
R221	VRS-CY1JF181JY	R	180	1/16W Metal Oxide	AA
R222	VRS-CY1JF471JY	R	470	1/16W Metal Oxide	AA
R227	VRS-CY1JF680JY	R	68	1/16W Metal Oxide	AA
R228	VRS-CY1JF102JY	R	1K	1/16W Metal Oxide	AA
R230	VRS-CY1JF391JY	R	390	1/16W Metal Oxide	AA
R231	VRS-CY1JF103JY	R	10K	1/16W Metal Oxide	AA
R232	VRS-CY1JF472JY	R	4.7K	1/16W Metal Oxide	AA
R233	VRS-CY1JF821JY	R	820	1/16W Metal Oxide	AA
R234	VRS-CY1JF681JY	R	680	1/16W Metal Oxide	AA
R303	VRS-CY1JF100JY	R	10	1/16W Metal Oxide	AA
R304	VRS-CY1JF100JY	R	10	1/16W Metal Oxide	AA
R305	VRS-CY1JF562JY	R	5.6K	1/16W Metal Oxide	AA
R310	VRD-RA2BE562JY	R	5.6K	1/8W Carbon	AA
R311	VRS-CY1JF562JY	R	5.6K	1/16W Metal Oxide	AA
R315	VRS-CY1JF273JY	R	27K	1/16W Metal Oxide	AA
R317	VRS-CY1JF562JY	R	5.6K	1/16W Metal Oxide	AA
R320	VRS-CY1JF562JY	R	5.6K	1/16W Metal Oxide	AA
R321	VRS-CY1JF100JY	R	10	1/16W Metal Oxide	AA
R322	VRS-CY1JF100JY	R	10	1/16W Metal Oxide	AA
R323	VRS-CY1JF562JY	R	5.6K	1/16W Metal Oxide	AA
R336	VRS-VV3AB220J	R	22	1W Metal Oxide	AA
R337	VRS-VV3AB220J	R	22	1W Metal Oxide	AA
R339	VRN-VV3AB4R7J	R	4.7	1W Metal Film	AA
R340	VRN-VV3AB4R7J	R	4.7	1W Metal Film	AA
R344	VRS-CY1JF822J	R	8.2	1/16W Metal Oxide	AA
R347	VRS-CY1JF101JY	R	100	1/16W Metal Oxide	AA
R348	VRS-CY1JF101JY	R	100	1/16W Metal Oxide	AA
R355	VRS-CY1JF822JY	R	8.2K	1/16W Metal Oxide	AA
R375	VRD-RA2BE102JY	R	1K	1/8W Carbon	AA
R376	VRD-RA2BE102JY	R	1K	1/8W Carbon	AA
R377	VRD-RA2BE101JY	R	100	1/8W Carbon	AA
R378	VRD-RA2BE101JY	R	100	1/8W Carbon	AA
R390	VRN-VV3ABR22J	R	0.22	1W Metal Film	AA
R391	VRN-VV3ABR22J	R	0.22	1W Metal Film	AA
R392	VRS-CY1JF333JY	R	33K	1/16W Metal Oxide	AA
R393	VRS-CY1JF103JY	R	10K	1/16W Metal Oxide	AA
R394	VRS-CY1JF333JY	R	33K	1/16W Metal Oxide	AA
R395	VRS-CY1JF103JY	R	10K	1/16W Metal Oxide	AA
R396	VRS-CY1JF103JY	R	10K	1/16W Metal Oxide	AA
R397	VRS-CY1JF333JY	R	33K	1/16W Metal Oxide	AA
R501	VRS-CY1JF562JY	R	5.6K	1/16W Metal Oxide	AA
R502	VRS-CY1JF123JY	R	12K	1/16W Metal Oxide	AA
R503	VRD-RA2BE222JY	R	2.2K	1/8W Carbon	AA
R504	VRD-RA2BE822JY	R	8.2K	1/8W Carbon	AA
R505	VRS-CY1JF123JY	R	12K	1/16W Metal Oxide	AA
R507	VRN-RA2BK272FY	R	2.7K	1/8W Metal Film	AA
R508	VRD-RA2BE683JY	R	68K	1/8W Carbon	AA
R513	VRS-CY1JF103JY	R	10K	1/16W Metal Oxide	AA
R514	VRN-VV3ABR82J	R	0.82	1W Metal Film	AA
R515	VRS-VV3DB221J	R	220	2W Metal Oxide	AA
R516	VRS-VV3DB471J	R	470	2W Metal Oxide	AA
R518	VRD-RA2BE101JY	R	100	1/8W Carbon	AA
R519	VRD-RA2BE101JY	R	100	1/8W Carbon	AA
R520	VRD-RA2BE101JY	R	100	1/8W Carbon	AA
R521	VRS-CY1JF123JY	R	12K	1/16W Metal Oxide	AA
R522	VRD-RA2BE102JY	R	1K	1/8W Carbon	AA
R523	VRD-RM2HD680JY	R	68	1/2W Carbon	AA
R524	VRD-RA2BE103JY	R	10K	1/8W Carbon	AA
R525	VRD-RA2BE102JY	R	1K	1/8W Carbon	AA
R600	VRS-CY1JF393FY	R	39K	1/16W Metal Oxide	AA
R602	VRS-SV2HC270J	R	27	1/2W Metal Oxide	AA
⚠ R603	VRD-RA2BE101JY	R	100	1/8W Carbon	AA
⚠ R604	VRN-VV3AB4R7J	R	4.7	1W Metal Film	AA
⚠ R605	VRD-RA2EE103GY	R	10K	1/4W Carbon	AA
⚠ R606	VRN-VV3ABR47J	R	0.47	1W Metal Film	AA
⚠ R607	VRD-RA2EE103JY	R	10K	1/4W Carbon	AA
⚠ R608	VRS-CY1JF393JY	R	39K	1/16W Metal Oxide	AA
R609	VRN-VV3DB6R8J	R	6.8	2W Metal Film	AB
⚠ R610	VRN-VV3DBR15J	R	0.15	2W Metal Film	AB
R611	VRS-VV3DB332J	R	3.3K	2W Metal Oxide	AA
R612	VRD-RA2BE101JY	R	100	1/8W Carbon	AA
R614	VRD-RM2HD124JY	R	120K	1/2W Carbon	AA
R615	VRD-RM2HD154JY	R	150K	1/2W Carbon	AA
R616	VRD-RM2HD472JY	R	4.7K	1/2W Carbon	AA
⚠ R617	VRD-RA2BE102JY	R	1K	1/8W Carbon	AA
R618	VRN-VV3ABR47JY	R	0.47	1W Metal Film	AA
R619	VRS-SV2HC102JY	R	1K	1/2W Metal Oxide	AA
⚠ R620	VRD-RA2BE152JY	R	1.5K	1/8W Carbon	AA
R621	VRD-RM2HD220JY	R	22	1/2W Carbon	AA
R622	VRD-RA2BE394JY	R	390K	1/8W Carbon	AA
R623	VRS-VV3AB102J	R	1K	1W Metal Oxide	AA
R624	VRD-RA2BE184JY	R	180K	1/8W Carbon	AA
R625	VRD-RA2BE394JY	R	390K	1/8W Carbon	AA
R626	VRS-VV3AB562J	R	5.6K	1W Metal Oxide	AA
R627	VRS-CY1JF394JY	R	390K	1/16W Metal Oxide	AA
R628	VRS-KA3NG1R2K	R	1.2	7W Metal Oxide	AD
R631	VRS-KA3NG122J	R	1.2K	7W Metal Oxide	AD
R633	VRS-CY1JF331JY	R	330	1/16W Metal Oxide	AA
R634	VRS-CY1JF331JY	R	330	1/16W Metal Oxide	AA
R635	VRS-CY1JF102JY	R	1K	1/16W Metal Oxide	AA
R636	VRS-VV3AB221J	R	220	1W Metal Oxide	AA
R637	VRS-CY1JF563JY	R	56K	1/16W Metal Oxide	AA
R638	VRS-CY1JF473JY	R	47K	1/16W Metal Oxide	AA
R639	VRS-KA3NG152J	R	1.5K	7W Metal Oxide	AD
R640	VRS-CY1JF182JY	R	1.8K	1/16W Metal Oxide	AA
R643	VRN-VV3LB3R3J	R	3.3	3W Metal Film	AB
R645	VRD-RA2BE473JY	R	47K	1/8W Carbon	AA
R652	VRS-CY1JF102JY	R	1K	1/16W Metal Oxide	AA
R654	VRS-VV3DB103J	R	10K	2W Metal Oxide	AA
R657	VRS-KA3HG681J	R	680	5W Metal Oxide	AD
R669	VRD-RA2BE101JY	R	100	1/8W Carbon	AA
R671	VRD-RA2BE101JY	R	100	1/8W Carbon	AA
R701	VRD-RM2HD100JY	R	10	1/2W Carbon	AA
R702	VRD-RA2EE152JY	R	1.5K	1/4W Carbon	AA
R703	VRD-RA2EE473JY	R	47K	1/4W Carbon	AA
R704	VRD-RA2BE101JY	R	100	1/8W Carbon	AA
R705	VRD-RA2BE102JY	R	1K	1/8W Carbon	AA
R706	VRD-RA2BE102JY	R	1K	1/8W Carbon	AA
R707	VRS-VV3DB104J	R	100K	2W Metal Oxide	AB
R709	VRN-VV3DBR22J	R	0.22	2W Metal Film	AB
⚠ R712	RR-HZ0014GEZZY	R	12M	1W Resistor	AE

Ref. No.	Part No.	★		Description	Code
R715	VRS-CY1JF154JY	R	150K	1/16W Metal Oxide	AA
R716	VRN-VV3DBR22J	R	0.22	2W Metal Film	AB
R717	VRS-VV3DB104J	R	100K	2W Metal Oxide	AB
R751	VRD-RM2HD102JY	R	1K	1/2W Carbon	AA
R752	VRS-VV3AB330J	R	33	1W Metal Oxide	AA
R753	VRD-RA2EE471JY	R	470	1/4W Carbon	AA
R760	VRS-CY1JF102JY	R	1K	1/16W Metal Oxide	AA
R761	VRS-CY1JF103JY	R	10K	1/16W Metal Oxide	AA
R762	VRS-VV3DB220J	R	22	2W Metal Oxide	AA
R763	VRD-RA2BE470JY	R	47	1/8W Carbon	AA
R764	VRD-RA2BE102JY	R	1K	1/8W Carbon	AA
R765	VRD-RA2BE102JY	R	1K	1/8W Carbon	AA
R767	VRS-VV3DB220J	R	22	2W Metal Oxide	AA
R768	VRD-RA2EE182JY	R	1.8K	1/4W Carbon	AA
R769	VRD-RA2BE821JY	R	820	1/8W Carbon	AA
R901	VRS-CY1JF000JY	R	0	1/16W Metal Oxide	AA
R902	VRS-CY1JF103JY	R	10K	1/16W Metal Oxide	AA
R903	VRS-CY1JF750JY	R	75	1/16W Metal Oxide	AA
R905	VRS-CY1JF101JY	R	100	1/16W Metal Oxide	AA
R906	VRS-CY1JF101JY	R	100	1/16W Metal Oxide	AA
R907	VRS-CY1JF101JY	R	100	1/16W Metal Oxide	AA
R908	VRD-RA2BE101JY	R	100	1/8W Carbon	AA
R909	VRD-RA2BE101JY	R	100	1/8W Carbon	AA
R910	VRS-CY1JF101JY	R	100	1/16W Metal Oxide	AA
R911	VRS-CY1JF101JY	R	100	1/16W Metal Oxide	AA
R912	VRD-RA2BE101JY	R	100	1/8W Carbon	AA
R913	VRS-CY1JF101JY	R	100	1/16W Metal Oxide	AA
R914	VRS-CY1JF101JY	R	100	1/16W Metal Oxide	AA
R915	VRS-CY1JF000JY	R	0	1/16W Metal Oxide	AA
R917	VRS-CY1JF103JY	R	10K	1/16W Metal Oxide	AA
R918	VRS-CY1JF103JY	R	10K	1/16W Metal Oxide	AA
R919	VRS-CY1JF000JY	R	0	1/16W Metal Oxide	AA
R920	VRS-CY1JF103JY	R	10K	1/16W Metal Oxide	AA
R921	VRS-CY1JF000JY	R	0	1/16W Metal Oxide	AA
R926	VRS-CY1JF151JY	R	150	1/16W Metal Oxide	AA
R928	VRD-RA2BE333JY	R	33K	1/8W Carbon	AA
R930	VRS-CY1JF750JY	R	75	1/16W Metal Oxide	AA
R931	VRS-CY1JF750JY	R	75	1/16W Metal Oxide	AA
R932	VRS-CY1JF750JY	R	75	1/16W Metal Oxide	AA
R933	VRS-CY1JF151JY	R	150	1/16W Metal Oxide	AA
R934	VRS-CY1JF750JY	R	75	1/16W Metal Oxide	AA
R935	VRS-CY1JF104JY	R	100K	1/16W Metal Oxide	AA
R936	VRS-CY1JF222JY	R	2.2K	1/16W Metal Oxide	AA
R938	VRD-RA2BE101JY	R	100	1/8W Carbon	AA
R942	VRS-CY1JF222JY	R	2.2K	1/16W Metal Oxide	AA
R944	VRD-RA2BE101JY	R	100	1/8W Carbon	AA
R945	VRS-CY1JF473JY	R	47K	1/16W Metal Oxide	AA
R947	VRD-RA2BE561JY	R	560	1/8W Carbon	AA
R948	VRS-CY1JF473JY	R	47K	1/16W Metal Oxide	AA
R949	VRS-CY1JF561JY	R	560	1/16W Metal Oxide	AA
R950	VRS-CY1JF102JY	R	1K	1/16W Metal Oxide	AA
R952	VRS-CY1JF102JY	R	1K	1/16W Metal Oxide	AA
R956	VRD-RA2BE560JY	R	56	1/8W Carbon	AA
R957	VRS-CY1JF331JY	R	330	1/16W Metal Oxide	AA
R959	VRS-CY1JF223JY	R	22K	1/16W Metal Oxide	AA
R960	VRS-CY1JF331JY	R	330	1/16W Metal Oxide	AA
R963	VRD-RA2BE101JY	R	100	1/8W Carbon	AA
R964	VRD-RA2BE123JY	R	12K	1/8W Carbon	AA
R967	VRD-RA2BE333JY	R	33K	1/8W Carbon	AA
R968	VRS-CY1JF101JY	R	100	1/16W Metal Oxide	AA
R969	VRS-CY1JF101JY	R	100	1/16W Metal Oxide	AA
R970	VRD-RA2BE333JY	R	33K	1/8W Carbon	AA
R971	VRS-CY1JF562JY	R	5.6K	1/16W Metal Oxide	AA
R972	VRD-RA2BE333JY	R	33K	1/8W Carbon	AA
R977	VRD-RA2BE101JY	R	100	1/8W Carbon	AA
R978	VRS-CY1JF104JY	R	100K	1/16W Metal Oxide	AA
R979	VRS-CY1JF104JY	R	100K	1/16W Metal Oxide	AA
R1032	VRS-CY1JF122JY	R	1.2K	1/16W Metal Oxide	AA
R1034	VRD-RA2BE122JY	R	1.2K	1/8W Carbon	AA
R2001	VRD-RA2BE103JY	R	10K	1/8W Carbon	AA
R2002	VRD-RA2BE101JY	R	100	1/8W Carbon	AA
R2004	VRS-CY1JF332JY	R	3.3K	1/16W Metal Oxide	AA
R2005	VRD-RA2BE101JY	R	100	1/8W Carbon	AA
R2006	VRD-RA2BE101JY	R	100	1/8W Carbon	AA
R2007	VRS-CY1JF222JY	R	2.2K	1/16W Metal Oxide	AA

Ref. No.	Part No.	★		Description	Code
R2008	VRS-CY1JF101JY	R	100	1/16W Metal Oxide	AA
R2009	VRS-CY1JF101JY	R	100	1/16W Metal Oxide	AA
R2010	VRS-CY1JF101JY	R	100	1/16W Metal Oxide	AA
R2011	VRD-RA2BE101JY	R	100	1/8W Carbon	AA
R2012	VRS-CY1JF101JY	R	100	1/16W Metal Oxide	AA
R2013	VRD-RA2BE101JY	R	100	1/8W Carbon	AA
R2015	VRS-CY1JF101JY	R	100	1/16W Metal Oxide	AA
R2016	VRS-CY1JF101JY	R	100	1/16W Metal Oxide	AA
R2017	VRS-CY1JF102JY	R	1K	1/16W Metal Oxide	AA
R2018	VRD-RA2BE101JY	R	100	1/8W Carbon	AA
R2019	VRD-RA2BE101JY	R	100	1/8W Carbon	AA
R2020	VRS-CY1JF101JY	R	100	1/16W Metal Oxide	AA
R2021	VRD-RA2BE100JY	R	10	1/8W Carbon	AA
R2022	VRS-CY1JF100JY	R	10	1/16W Metal Oxide	AA
R2023	VRS-CY1JF101JY	R	100	1/16W Metal Oxide	AA
R2024	VRD-RA2BE101JY	R	100	1/8W Carbon	AA
R2025	VRD-RA2BE101JY	R	100	1/8W Carbon	AA
R2028	VRD-RA2BE101JY	R	100	1/8W Carbon	AA
R2029	VRD-RA2BE101JY	R	100	1/8W Carbon	AA
R2030	VRD-RA2BE101JY	R	100	1/8W Carbon	AA
R2031	VRS-VV3AB100J	R	10	1W Metal Oxide	AA
R2033	VRS-CY1JF684JY	R	680K	1/16W Metal Oxide	AA
R2034	VRS-VV3AB100J	R	10	1W Metal Oxide	AA
R2035	VRD-RA2BE101JY	R	100	1/8W Carbon	AA
R2036	VRD-RA2BE101JY	R	100	1/8W Carbon	AA
R2038	VRS-CY1JF333JY	R	33K	1/16W Metal Oxide	AA
R2039	VRS-CY1JF101JY	R	100	1/16W Metal Oxide	AA
R2040	VRS-CY1JF101JY	R	100	1/16W Metal Oxide	AA
R2041	VRS-CY1JF000JY	R	0	1/16W Metal Oxide	AA
R2042	VRS-CY1JF332JY	R	3.3K	1/16W Metal Oxide	AA
R2043	VRS-CY1JF332JY	R	3.3K	1/16W Metal Oxide	AA
R2044	VRS-CY1JF103JY	R	10K	1/16W Metal Oxide	AA
R2052	VRS-CY1JF332JY	R	3.3K	1/16W Metal Oxide	AA
R2101	VRD-RA2BE563GY	R	56K	1/8W Carbon	AA
R2102	VRD-RA2BE333GY	R	33K	1/8W Carbon	AB
R2103	VRD-RA2BE333GY	R	33K	1/8W Carbon	AB
R2104	VRS-CY1JF472JY	R	4.7K	1/16W Metal Oxide	AA
R2105	VRS-CY1JF472JY	R	4.7K	1/16W Metal Oxide	AA
R2106	VRD-RA2BE563GY	R	56K	1/8W Carbon	AA
R2107	VRD-RA2BE101JY	R	100	1/8W Carbon	AA

MISCELLANEOUS PARTS

	QCNW-D145WJPZ	R	Connecting Cord		AE
FB303	RBLN-0047CEZZ	R	Balun		AB
FB304	RBLN-0047CEZZ	R	Balun		AB
FB501	RBLN-0047CEZZ	R	Balun		AB
FB502	RBLN-0047CEZZ	R	Balun		AB
FB503	RBLN-0020CEZZ	R	Balun		AB
⚠ FB601	RBLN-0047CEZZ	R	Balun		AB
FB602	RBLN-0047CEZZ	R	Balun		AB
FB603	RBLN-0020CEZZ	R	Balun		AB
FB702	RBLN-0020CEZZ	R	Balun		AB
FB703	RBLN-0020CEZZ	R	Balun		AB
FB751	RBLN-0020CEZZ	R	Balun		AB
FB752	RBLN-0020CEZZ	R	Balun		AB
J905	QTANJA056WJZZ	R	Terminal		AH
J907	QSOCDA023WJZZ	R	Socket		AE
P301	QPLGN0461CEZZ	R	Plug, 4pin		AB
P401	QPLGN0878GEZZ	R	Plug, 8pin(KY)		AC
⚠ P601	QPLGN0160FJZZ	R	Plug, 5pin(K)		AD
P621	QPLGN0761CEZZ	R	Plug, 7pin(H)		AD
P701	QPLGN0260CEZZ	R	Plug, 2pin		AC
P702	QPLGN0269GEZZ	R	Plug, 2pin(AC)		AB
P1001	QPLGN0761CEZZ	R	Plug, 7pin(CC)		AD
P1002	QPLGN0678GEZZ	R	Plug, 6pin(CA)		AB
P1003	QPLGN0778GEZZ	R	Plug, 7pin(CD)		AC
P1004	QPLGN0461CEZZ	R	Plug, 4pin(CB)		AB
P2100	QPLGN0661CEZZ	R	Plug, 6pin		AD
RDA602	PRDARA123WJPW	R	Heat Sink		AF
RDA604	PRDARA113WJPW	R	Heat Sink		AF
⚠ RDA701	PRDARA140WJPW	R	Heat Sink		AE
RDA751	PRDAR5072CEFW	R	Heat Sink		AC
⚠ RY701	RRLYJ0089CEZZ	R	Relay		AG
TP53	QLUGP0102PEZZ	R	Lug		AA

Ref. No.	Part No.	★	Description	Code

PWB-B DUNTKC519WEA1
CRT Unit

INTEGRATED CIRCUIT

IC851	VHiTDA6107A-1	R	TDA6107AJF/N1	AK

TRANSISTORS

Q1501	VS2SC3198-Y-1+	R	2SC3198-Y	AA
Q1502	VS2SA1266-Y-1+	R	2SA1266-Y	AA
Q1503	VS2SA2005++1E	R	2SA2005	AE
Q1504	VS2SC5511++1E	R	2SC5511	AE
Q1505	VS2SC3198-Y-1+	R	2SC3198-Y	AA
Q1506	VS2SC3198-Y-1+	R	2SC3198-Y	AA
Q1507	VS2SC3198-Y-1+	R	2SC3198-Y	AA
Q1508	VS2SC3198-Y-1+	R	2SC3198-Y	AA

DIODES

D851	RH-DX0220CEZZY	R	Diode	AB
D852	RH-DX0220CEZZY	R	Diode	AB
D853	RH-DX0220CEZZY	R	Diode	AB
D854	RH-DX0220CEZZY	R	Diode	AB
D855	RH-DX0220CEZZY	R	Diode	AB
D856	RH-DX0220CEZZY	R	Diode	AB
D1501	VHD1SS133++-1Y	R	1SS133	AA
D1506	VHD1SS133++-1Y	R	1SS133	AA
D1507	VHD1SS133++-1Y	R	1SS133	AA
D1508	RH-DX0487CEZZY	R	Diode	AC
D1509	RH-DX0487CEZZY	R	Diode	AC

CAPACITORS

C851	VCFYSB2EB823J	R	0.082	250V	Mylar	AD
C852	VCEA0A2EW106M+	R	10	250V	Electrolytic	AD
C853	VCKYPA2HB221K+	R	220P	500V	Ceramic	AB
C854	RC-KZ018JCEZZ	R	0.01	AC250V	Ceramic	AC
C855	VCKYPA2HB221K+	R	220P	500V	Ceramic	AB
C857	VCFYSB2EB823J	R	0.082	250V	Mylar	AD
C858	VCQYTA1HM104J+	R	0.1	50V	Mylar	AB
C859	VCEA0A2AW106M+	R	10	100V	Electrolytic	AC
C1501	VCEA0A1EW476M+	R	47	25V	Electrolytic	AB
C1502	VCKYPA1HF103Z+	R	0.01	50V	Ceramic	AA
C1503	VCKYPA2HB472K+	R	4700P	500V	Ceramic	AB
C1504	VCKYPA2HB472K+	R	4700P	500V	Ceramic	AB
C1505	VCKYPA1HF103Z+	R	0.01	50V	Ceramic	AA
C1506	VCKYPA1HF103Z+	R	0.01	50V	Ceramic	AA
C1507	VCEA0A1EW476M+	R	47	25V	Electrolytic	AB
C1508	VCCSPA2HL560K+	R	56P	500V	Ceramic	AA
C1510	VCEA4A2CN106M+	R	10	160V	Electrolytic	AC
C1511	VCEA0A1EW476M+	R	47	25V	Electrolytic	AB
C1512	VCQYTA1HM822J+	R	8200P	50V	Mylar	AA
C1513	VCQYTA1HM103J+	R	0.01	50V	Mylar	AB
C1514	VCKYPA1HB391K+	R	390P	50V	Ceramic	AA
C1515	VCQYTA1HM103J+	R	0.01	50V	Mylar	AB
C1516	VCQYTA1HM104K+	R	0.1	50V	Mylar	AC
C1517	VCKYPA2HB102K+	R	1000P	500V	Ceramic	AA
JB311	VCKYPA2HB102K+	R	1000P	500V	Ceramic	AA

RESISTORS

R851	VRD-RM2HD101JY	R	100	1/2W	Carbon	AA
R852	VRD-RM2HD101JY	R	100	1/2W	Carbon	AA
R853	VRD-RM2HD101JY	R	100	1/2W	Carbon	AA
R854	VRC-MA2HG152KY	R	1.5K	1/2W	Solid	AA
R855	VRC-MA2HG152KY	R	1.5K	1/2W	Solid	AA
R856	VRC-MA2HG152KY	R	1.5K	1/2W	Solid	AA
R858	VRS-SV2HC100J	R	10	1/2W	Metal Oxide	AA
R861	VRD-RM2HD224JY	R	220K	1/2W	Carbon	AA
R863	VRD-RA2BE221JY	R	220	1/8W	Carbon	AA
R864	VRD-RA2BE221JY	R	220	1/8W	Carbon	AA
R865	VRD-RA2BE221JY	R	220	1/8W	Carbon	AA
R1503	VRD-RA2BE222JY	R	2.2K	1/8W	Carbon	AA
R1504	VRD-RA2BE100JY	R	10	1/8W	Carbon	AA
R1506	VRD-RA2BE820JY	R	82	1/8W	Carbon	AA
R1507	VRD-RA2BE820JY	R	82	1/8W	Carbon	AA
R1509	VRD-RA2BE122JY	R	1.2K	1/8W	Carbon	AA
R1510	VRD-RA2BE683JY	R	68K	1/8W	Carbon	AA
R1511	VRD-RA2BE683JY	R	68K	1/8W	Carbon	AA
R1512	VRD-RA2BE122JY	R	1.2K	1/8W	Carbon	AA
R1513	VRD-RA2BE123JY	R	12K	1/8W	Carbon	AA
⚠ R1514	VRS-VV3DB221J	R	220	2W	Metal Oxide	AA
R1515	VRD-RA2EE560JY	R	56	1/4W	Carbon	AA
R1516	VRD-RA2EE560JY	R	56	1/4W	Carbon	AA
R1517	VRD-RA2EE1R5JY	R	1.5	1/4W	Carbon	AA
R1518	VRD-RA2EE1R0JY	R	1	1/4W	Carbon	AA
⚠ R1519	VRS-VV3DB221J	R	220	2W	Metal Oxide	AA
R1520	VRD-RA2BE102JY	R	1K	1/8W	Carbon	AA
R1521	VRD-RA2BE223JY	R	22K	1/8W	Carbon	AA
R1522	VRD-RA2BE821JY	R	820	1/8W	Carbon	AA
R1523	VRD-RA2BE471JY	R	470	1/8W	Carbon	AA
R1524	VRD-RA2BE471JY	R	470	1/8W	Carbon	AA
R1525	VRD-RA2BE152JY	R	1.5K	1/8W	Carbon	AA
R1526	VRD-RA2BE393JY	R	39K	1/8W	Carbon	AA
R1527	VRD-RA2BE182JY	R	1.8K	1/8W	Carbon	AA
R1528	VRD-RA2BE331JY	R	330	1/8W	Carbon	AA
R1529	VRD-RA2BE273JY	R	27K	1/8W	Carbon	AA
R1530	VRD-RA2BE393JY	R	39K	1/8W	Carbon	AA
R1531	VRD-RA2BE152JY	R	1.5K	1/8W	Carbon	AA
R1532	VRD-RA2BE101JY	R	100	1/8W	Carbon	AA
R1534	VRD-RA2BE221JY	R	220	1/8W	Carbon	AA

MISCELLANEOUS PARTS

FB852	RBLN-0091GEZZY	R	Balun	AB
FB1501	RBLN-0020CEZZ+	R	Balun	AB
P851	QTIPM0083CEZZ	R	Tip, 1pin	AB
P852	QTIPM0083CEZZ	R	Tip, 1pin	AB
P854	QPLGN0261CEZZ	R	Plug, 2pin	AB
P855	QPLGN0761CEZZ	R	Plug, 7pin(H)	AD
P860	QPLGN0878GEZZ	R	Plug, 8pin(KY)	AC
RDA851	PRDAR0248PEFW	R	Heat Sink	AF
RDA1503	PRDAR0083PEFW	R	Heat Sink	AD
RDA1504	PRDAR0083PEFW	R	Heat Sink	AD
⚠ SC851	QSOCVA005WJZZ	R	Socket, 12pin	AE

PWB-C DUNTKC517WEA1
FRONT Unit

INTEGRATED CIRCUITS

IC4401	VHiKIA358P+-1	R	KiA358P	AD
⚠ IC4701	VHiMIP0254/-1	R	MiP0254SPSCF	AL

TRANSISTORS

Q4001	VS2SA1266-Y-1+	R	2SA1266-Y	AA
Q4002	VS2SC3198-Y-1+	R	2SC3198-Y	AA
Q4003	VS2SC3198-Y-1+	R	2SC3198-Y	AA
Q4004	VS2SC3198-Y-1+	R	2SC3198-Y	AA
Q4005	VS2SC3198-G-1+	R	2SC3198-G	AA
Q4006	VS2SC3198-G-1+	R	2SC3198-G	AA

DIODES

D4001	RH-PXA036WJZZ	R	PhotoDiode	AD
D4002	RH-PXA036WJZZ	R	PhotoDiode	AD
D4003	RH-PX0037PEZZ	R	PhotoDiode	AD
D4301	VHD1SS133++-1Y	R	1SS133	AA
D4401	VHD1SS133++-1Y	R	1SS133	AA
D4402	VHD1SS133++-1Y	R	1SS133	AA
D4701	RH-DX0407CEZZY	R	Diode	AD
D4706	RH-EX1329CEZZY	R	Zener Diode	AD
⚠ D4707	RH-DX0083GEZZ	R	Diode	AC
⚠ IC4702	RH-FXA003WJZZ	R	PC123Y82	AD
R4702	RH-HXA014WJZZ+	R	Thermistor	AD

PACKAGED CIRCUIT

⚠ VA4701	RH-VX0073CEZZ	R	Varistor	AD
⚠ ACC4701	QACCZA019WJPZ	R	AC Cord	AH

COIL & TRANSFORMER

⚠ L4701	RCiLFA106WJZZ	R	Coil	AE
L4903	RCiLP0195CEZZ+	R	Coil	AC
⚠ T4701	RTRNZ0190PEZZ	R	Transformer	AH

Ref. No.	Part No.	★	Description	Code
	CAPACITORS			
C4001	VCEA0A1HW476M+R		47 50V Electrolytic	AB
C4002	VCKYPA1HF103Z+	R	0.01 50V Ceramic	AA
C4372	VCEA0A1CW106M+R		10 16V Electrolytic	AB
C4373	VCEA0A1CW106M+R		10 16V Electrolytic	AB
C4376	VCKYPA1HF103Z+	R	0.01 50V Ceramic	AA
C4378	VCEA0A1CW106M+R		10 16V Electrolytic	AB
C4380	VCEA0A1HW105M+R		1 50V Electrolytic	AB
C4381	VCEA0A1HW105M+R		1 50V Electrolytic	AB
C4401	VCQYTA1HM104K+R		0.1 50V Mylar	AC
C4701	RC-FZA097WJZZ	R	0.22 AC250V M. Polypro	AC
C4702	VCKYPA2HB221K+	R	220P 500V Ceramic	AB
⚠ C4703	VCEA0A2GW475M	R	4.7 400V Electrolytic	AE
⚠ C4704	VCQYTA1HM104K+R		0.1 50V Mylar	AC
C4705	RC-KZ016SCEZZ	R	470P 4kV Ceramic	AD
C4706	RC-EZA160WJZZ	R	470 16V Electrolytic	AC
C4707	RC-KZ0069GEZZ	R	47P 2kV Ceramic	AC
C4710	VCEA0A1CW476M+R		47 16V Electrolytic	AB
C4913	VCKYPA1HB102K+	R	1000P 50V Ceramic	AA
C4916	VCKYPA1HB102K+	R	1000P 50V Ceramic	AA
C4922	VCEA0A1HW106M+R		10 50V Electrolytic	AB
C4924	VCEA0A1HW106M+R		10 50V Electrolytic	AB
	RESISTORS			
R4001	VRD-RA2BE221JY	R	220 1/8W Carbon	AA
R4002	VRD-RA2BE331JY	R	330 1/8W Carbon	AA
R4003	VRD-RA2BE681JY	R	680 1/8W Carbon	AA
R4004	VRD-RA2BE152JY	R	1.5K 1/8W Carbon	AA
R4005	VRD-RA2BE472JY	R	4.7K 1/8W Carbon	AA
R4006	VRD-RA2BE152JY	R	1.5K 1/8W Carbon	AA
R4008	VRD-RA2BE223JY	R	22K 1/8W Carbon	AA
R4009	VRD-RA2BE103JY	R	10K 1/8W Carbon	AA
R4010	VRD-RA2BE470JY	R	47 1/8W Carbon	AA
R4011	VRD-RA2BE223JY	R	22K 1/8W Carbon	AA
R4013	VRD-RA2BE103JY	R	10K 1/8W Carbon	AA
R4021	VRD-RA2BE181JY	R	180 1/8W Carbon	AA
R4022	VRD-RA2BE223JY	R	22K 1/8W Carbon	AA
R4023	VRD-RA2BE103JY	R	10K 1/8W Carbon	AA
R4024	VRD-RA2BE473JY	R	47K 1/8W Carbon	AA
R4025	VRD-RA2BE472JY	R	4.7K 1/8W Carbon	AA
R4026	VRD-RA2BE331JY	R	330 1/8W Carbon	AA
R4028	VRD-RA2BE392JY	R	3.9K 1/8W Carbon	AA
R4031	VRD-RA2BE392JY	R	3.9K 1/8W Carbon	AA
R4033	VRD-RA2BE181JY	R	180 1/8W Carbon	AA
R4359	VRD-RA2BE102JY	R	1K 1/8W Carbon	AA
R4369	VRD-RA2BE680JY	R	68 1/8W Carbon	AA
R4370	VRD-RA2BE680JY	R	68 1/8W Carbon	AA
R4371	VRD-RA2BE682JY	R	6.8K 1/8W Carbon	AA
R4372	VRD-RA2BE682JY	R	6.8K 1/8W Carbon	AA
R4373	VRD-RA2BE151JY	R	150 1/8W Carbon	AA
R4374	VRD-RA2BE151JY	R	150 1/8W Carbon	AA
R4375	VRD-RA2BE101JY	R	100 1/8W Carbon	AA
R4376	VRD-RA2BE273JY	R	27K 1/8W Carbon	AA
R4377	VRD-RA2BE101JY	R	100 1/8W Carbon	AA
R4378	VRD-RA2BE273JY	R	27K 1/8W Carbon	AA
R4380	VRD-RA2BE104JY	R	100K 1/8W Carbon	AA
R4381	VRD-RA2BE104JY	R	100K 1/8W Carbon	AA
R4401	VRD-RA2BE101JY	R	100 1/8W Carbon	AA
R4402	VRD-RA2BE224JY	R	220K 1/8W Carbon	AA
R4403	VRD-RA2BE393JY	R	39K 1/8W Carbon	AA
R4404	VRD-RA2BE105JY	R	1M 1/8W Carbon	AA
⚠ R4701	VRC-UA2HG275KY	R	2.7M 1/2W Solid	AC
⚠ R4703	VRW-KP3HC330J	R	33 5W Cement	AD
R4912	VRD-RA2BE103JY	R	10K 1/8W Carbon	AA
R4914	VRD-RA2BE103JY	R	10K 1/8W Carbon	AA
R4921	VRD-RA2BE750JY	R	75 1/8W Carbon	AA
R4923	VRD-RA2BE750JY	R	75 1/8W Carbon	AA
	SWITCHES			
S4001	QSW-K0079GEZZ+	R	Switch, MENU	AB
S4002	QSW-K0079GEZZ+	R	Switch, VOL. UP	AB
S4003	QSW-K0079GEZZ+	R	Switch, CH. DOWN	AB
S4004	QSW-K0079GEZZ+	R	Switch, CH. UP	AB
S4005	QSW-K0079GEZZ+	R	Switch, VOL. DOWN	AB

Ref. No.	Part No.	★	Description	Code
⚠ S4701	QSW-P0612CEZZ	R	Switch	AG
	MISCELLANEOUS PARTS			
FB4701	RBLN-0094GEZZY	R	Balun	AB
⚠ FB4702	RBLN-0094GEZZY	R	Balun	AB
⚠ FH4701	QFSHD1013CEZZ+	R	Fuse Holder	AC
⚠ FH4702	QFSHD1014CEZZ+	R	Fuse Holder	AC
⚠ F4701	QFS-CA003WJZZ	R	Fuse 5A 250V	AC
J4301	QJAKJ0101SEZZ	R	Jack	AE
J4901	QJAKG0023WJZZ	R	Jack	AE
J4902	QSOCDA023WJZZ	R	Socket	AE
P4001	QPLGN0678GEZZ	R	Plug, 6pin(CA)	AB
P4002	QPLGN0461CEZZ	R	Plug, 4pin(CB)	AB
P4003	QPLGN0761CEZZ	R	Plug, 7pin(CC)	AD
P4004	QPLGN0778GEZZ	R	Plug, 7pin(CD)	AC
⚠ P4701	QPLGN0269GEZZ	R	Plug, 2pin	AB
P4702	QPLGN0269GEZZ	R	Plug, 2pin(AC)	AB
RMC4001	RRMCUA024WJZZ	R	Remote Receiver	AG

Ref. No.	Part No.	★	Description	Code

MISCELLANEOUS PARTS

	VSP2204PB048A	R	Speaker	AT
	QCNW-C625WJPZ	R	Connecting Cord	AF
	QCNW-C627WJPZ	R	Connecting Cord	AG
	QCNW-C628WJPZ	R	Connecting Cord	AD
	QCNW-C629WJPZ	R	Connecting Cord	AE
	QCNW-C630WJPZ	R	Connecting Cord	AF
	QCNW-C631WJPZ	R	Connecting Cord	AG
	QCNW-C754WJPZ	R	Connecting Cord	AF
	QCNW-D348WJPZ	R	Connecting Cord	AM

SUPPLIED ACCESSORIES

ACCESSORIES

X1	RRMCGA270WJSA	R	Infrared Remote Control Unit	AR
X2	TiNS-B506WJZZ	R	Opearation Manual	

PACKING PARTS

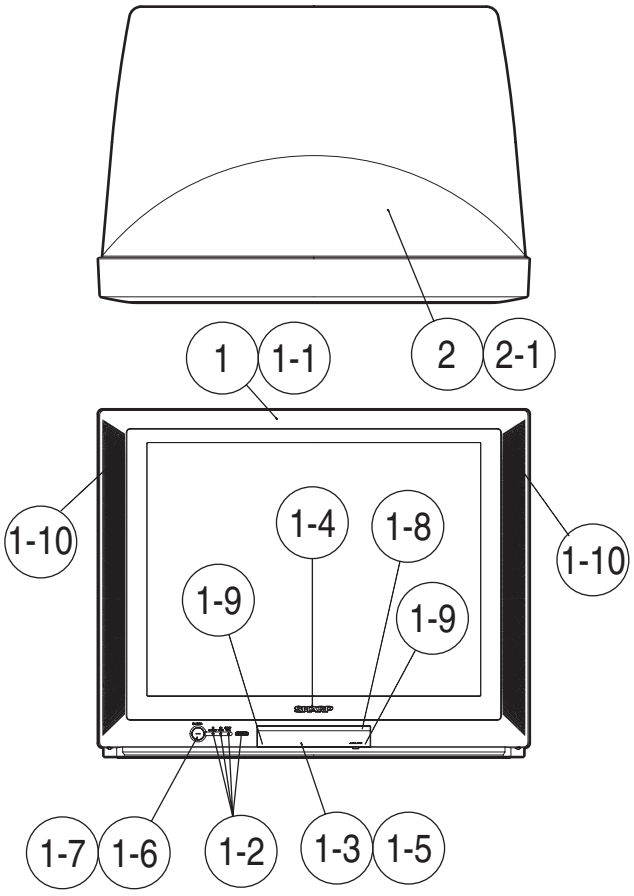
(NOT REPLACEMENT ITEM)

S1	SPAKCB607WJZZ	-	Packing Case	—
S2	SPAKXA414WJZZ	-	Buffer Material	—
S3	SSAKA0031PEZZ	-	Polyethylene Bag	—
S4	SSAKH0018PEZZ	-	Wrapping Paper	—
S5	TLABKA008WJZZ	-	Label	—

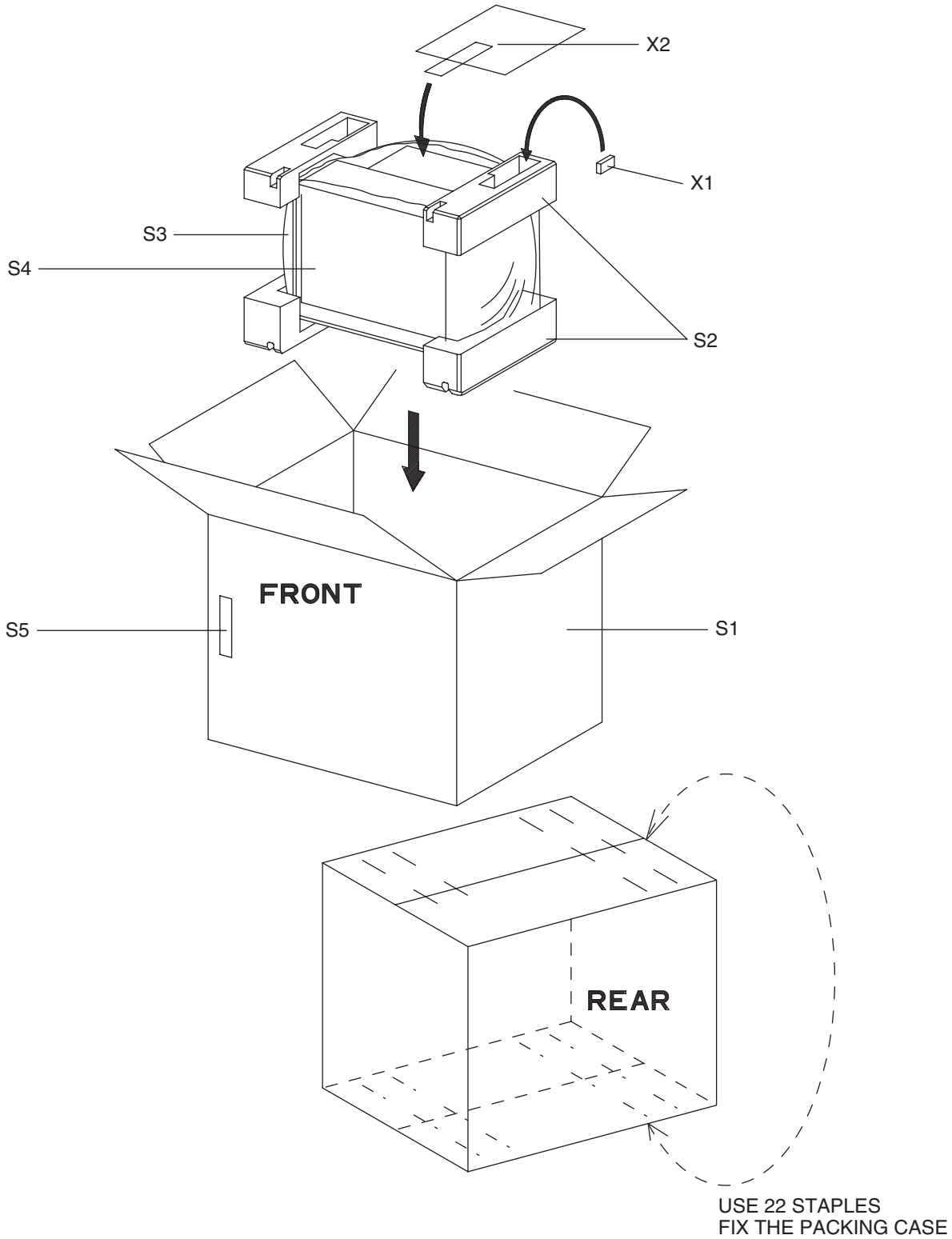
Ref. No.	Part No.	★	Description	Code

CABINET PARTS

1	CCABAA693WEV0	R	Front Cabinet Ass'y	
1-1	*Not Available*	-	Front Cabinet	—
1-2	HDECQA377WJSA	R	LED & R/C Dec.	AD
1-3	GDORFA083WJSB	R	Door	AH
1-4	HBDGB3141CESA	R	SHARP Badge	AG
1-5	HINDPA805WJSA	R	Indication Plate (In door)	AD
1-6	JBTN-A270WJSB	R	Power Button	AE
1-7	MSPRC0005PEFW	R	Power Button Spring	AB
1-8	MSPRPA003WJFW	R	Spring For Door	AB
1-9	PSPAGA026WJZZ	R	Door Spacer x2	AB
1-10	GCOVHA045WJZZ	R	Tweeter Cover x 2	AC
2	CCABBA373WEV1	R	Rear Cabinet Ass'y	
2-1	*Not Available*	-	Rear Cabinet	—



PACKING OF THE SET



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